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AND FIRST EDITOR-IN-CHIEF
OF THE

MODERN BUSINESS SERIES

Insurance

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PREFACE

Every business venture—whether of a financial, manufacturing, marketing, or service nature, and regardless of size, age, or previous record of successfulness—is faced with many unavoidable risks. In addition to the uncertainties that mark the normal course of business operation, there are numerous external hazards, entirely beyond the control of the company, that constantly hold forth a threat of possible disastrous results. The business executive never knows when, where, or how these hazards may become realities and perhaps wipe out the accomplishments of years of successful endeavor.

Modern business has taken special precautions to overcome the disastrous effects of such unexpected happenings. As a protection to the individual organization against the severe losses and the possibility of actual business failure that may result, various forms of insurance have been developed to pool the risks. Upon the basis of statistical data, where obtainable, and upon experienced judgment, where exact figures are lacking, forms of contract and rates of premium have been established to place the protection on a sound foundation. In any event, the

individual business is assured that at least a part, and perhaps the major portion, of the loss insured against will be repaid out of the common fund contributed by the whole group. In this way, all help to bear the losses that each may suffer. The saving of the various enterprises from possible business failure is not only a business but also a social benefit.

Business protects itself from disaster by various well-established forms of insurance, the most common being: fire, workmen's compensation, liability, marine, inland marine, and credit protection policies, and fidelity and surety bonds. For the protection of its employees in old age a company may establish an annuity plan. It may protect the dependents of its employees through insurance on the lives of its workers, often under the group plan. Individuals, likewise, may protect their property by fire insurance, their dependents by various forms of life insurance, and their earning power by personal accident and health insurance. All of these forms of insurance are discussed fully by the authors of the Text on "Insurance."

The authors have contributed to this Text out of a wide experience in the various important insurance fields in which each has specialized. Appreciation is extended for the advice of Ray L. Hills, Assistant Vice President of the Great American Indemnity Company, who assisted in the development of the context in certain chapters. Acknowledgment is

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EDITOR-IN-CHIEF

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INSURANCE

CHAPTER I

NATURE OF RISK AND INSURANCE

1. *Nature of insurance.*—Insurance is essentially a community enterprise, social in character but economic in consequence. It touches all phases of commercial endeavor and personal welfare, and creates a stabilizing influence upon business and human relations by reducing uncertainties and risks to a degree of comparative security and protection against the losses involved.

No one cares to suffer a loss, least of all the business corporation that depends on the continued use of its property for the accumulation of profits, or the individual who makes a living by the ability of his hands and brain. Yet every minute of the night and day is crowded with the chance that some risk will become an expensive reality, that some possible, though unexpected, happening may materialize—whether it be death, accident, or sickness to the person, or fire, shipwreck, or other damage caused by or to property.

With society faced by these unpleasant possibil-

ities, the control of risk and the minimizing of its disastrous effect create important problems. While efficient care and precaution may reduce losses, the results achieved by this means alone would be inconsiderable. Most risks are beyond the limits of ordinary human anticipation and control. Public attention is directed to building, expanding, and making profits, rather than to a consideration of the ways in which there lies danger of sustaining losses through the happening of some costly emergency. A far better and more substantial solution presents itself in the form of insurance, which, while it does not eliminate the uncertainty as to whether or where a loss will fall, does guarantee the immediate sufferer of the loss that he will not be called upon to bear his burden alone.

2. *Method of insurance.*—Insurance distributes among a large group, subject to the same risk, the losses of uncertain occurrence and extent that fall upon the members of the group. The costs are distributed in such manner that the share of each in the payment is relatively small, relatively constant in amount from time to time, and so equitably proportioned as not to be an economic burden that is too heavy for the insured. For example, a group of 1,000 property owners may each contribute a yearly premium of $10 and so obtain insurance against fire for their individual properties, worth about $5,000 each. The probability is against all the structures being destroyed or damaged at the

same time, assuming them to be widely distributed and so not subject to local conflagrations. There is reason to expect, however, that, since all the property owners are exposed to the same risk, even though in varying degrees, some buildings will be burned. No one knows, or can guess, where the catastrophe will fall. By means of insurance, however, no matter who suffers the immediate loss, indemnity is guaranteed by the insurance carrier. All those insured on the same basis are protected against the same uncertainty.

3. *Classification of economic risks.*—Insurance has its multiple uses in every field. It represents a medium of security against numerous hazards that would otherwise keep business and individuals in a precarious state of watchful uncertainty. This protection extends from the insured parcel-post package, sent speeding through the mails with its coverage of a few dollars, to the gigantic city skyscraper with the millions invested in its construction secured by insurance against many threatening risks.

Insurance offers guarantees of indemnity to the worker in the industrial plant, confronted by a score of dangers of personal injury; to the automobile operator driving through crowded streets; to the property owner whose title is subject to challenge; to employers entrusting funds to their cashiers, bookkeepers, and messengers; to large and small merchants alike, whose success is measured by the continued marketable condition of their wares; and

to the manufacturer sending his products by train, ship, or airplane.

The extent to which insurance has been developed to deal with specific risk problems is partially indicated by the following twofold classifications:

(a) Risks to persons
  (1) Death
  (2) Accident
  (3) Sickness
  (4) Invalidity
  (5) Unemployment
  (6) Old age
(b) Risks to property
  (1) Fire
  (2) Marine
  (3) Burglary and theft
  (4) Explosion
  (5) Negligence
  (6) Hail and windstorm
  (7) Accident
  (8) Defective legal titles

The subdivisions of these two classes represent, in each case, a specific type of catastrophe, the occurrence of which may in some way affect the economic status of individuals, and for protection against which various types of insurance organizations are now in operation. These two classes, risks to persons and risks to property, do not, however, exhaust the possibilities of insurance, nor do they afford a complete list of the instances in which the principle of insurance actually has been applied.

A further classification, which includes the two

above given but which is broader than either, distinguishes between different types of *risk to business enterprise.* These may be subdivided in various ways but, for the purpose of showing the possibility of dealing with the risks by means of insurance, the following is appropriate:

(a) Personal and property risks
    (Include risks shown in classification above)
(b) Speculative risks, due to
    (1) Changes in wants
    (2) Changes in methods of production

In meeting the problems of speculative business risks, less use has been made of the principle of insurance than in the two classes first given. However, credit insurance might be considered as one instance of the application of insurance to speculative risks.

4. *The consequences of risk.*—One characteristic feature in the development of insurance protection relates directly to the position of those who are faced with uncertain losses. Where those exposed to loss are in a position to demand effective protection and to make a reasonable payment in the form of an insurance premium for that protection, insurance organizations are readily developed in response to such a demand. Where effective protection is beyond the reach of those unable to meet a proportionate premium charge, the coverage of uncertain losses develops much more slowly, and, as a rule, only through the action of the state.

If social welfare is unfavorably affected through the frequency of uncertain losses upon particular individuals or groups in society, and these groups are financially unable to demand and pay for insurance protection, the state may by legislation require the establishment of such protection. Fire insurance and workmen's compensation insurance illustrate the contrast here presented as between insurance protection instituted by private demand and insurance protection realized through legislation.

5. *The economic or financial aspect of risk.*—Risks, or uncertainties, as may be inferred from the foregoing, vary greatly in their consequences. The particular consequences that are of importance here, having brought about the development of insurance protection, are those that in some way affect economic welfare. Catastrophes may occur, or uncertainties may exist, the outcome of which will in no way affect the financial status of individuals, or the economic welfare of the community. They may be ever so serious in their effect upon community life and equally so upon individuals, but, until they are in some way measurable in terms of income to the community, or to groups of individuals, a solution involving the principles of insurance will not be sought.

The destruction of property by fire is of immediate concern to the owners of property, since such losses at once affect their incomes. They have, therefore, sought and have obtained the protection of insurance

and fire-insurance organizations of various kinds operating throughout the civilized world today to combat the fire risk.

6. *The sources of economic risk.*—The uncertainties connected with economic activity lie in the structure of our economic organization. Commodities, or services, are produced by individuals and offered in the market in exchange for other commodities or services that these individuals desire. The extent to which individuals are able, therefore, to supply their wants depends fundamentally on the things that they desire, or the services that they render. When a man ceases to produce he may suffer the loss of the income with which he purchases the common necessaries of life. Thus the family, in a very important sense, is an economic organization. The ability of the parent to supply his children with economic goods and services, and with the cultural and educational advantages of the community, depends in no small degree on his income. Yet the uncertainties to which the parent may be exposed in the earning of this income may stand in the way of his fulfillment of these responsibilities to the child. The parental responsibility that is thus assumed can be fulfilled only in time, and if death overtakes a man before the time for the rearing of children has elapsed, his responsibility cannot be met directly.

Not only the family, but also organizations for economic activity, and business organizations, are to a large extent individual responsibilities. The single

proprietorship and the partnership are still dominant in many avenues of business. Like families, they are exposed to many uncertainties, generally because of the very fact that the scope of their operations is limited. Only a small element of uncertainty is involved in the fire loss of a transcontinental railroad corporation, because of its great size, but to the retail grocer the fire hazard presents a real risk that may be his complete undoing unless he has the protection of insurance.

7. *Neutralizing economic risks.*—Despite the mechanization of business generally, to the extent that the ordinary worker frequently can be replaced more easily than can a broken piece of machinery, many industrial concerns are largely dependent upon individuals for inspiration, vision, control, and direction. The death of an important corporation executive often results in a period of depreciation of efficiency and power in the organization until someone equally able and as familiar with the duties of the position is found to take his place. It is, therefore, becoming more widely accepted that insurance upon the life of an executive is as essential to a business as fire insurance on its property, since his death often results in even greater loss than is caused by the ordinary property damage.

By means of partnership insurance, also, successful firms that might otherwise have been disrupted by the death of a partner, and the consequent liquidation of his share in the business, are preserved intact. The

life insurance fund received by the partnership upon the partner's death is usually sufficient to satisfy his estate without disturbing the business assets, or causing a curtailment or cessation of activity, due to a lessened capital.

Another medium by which profits are preserved in the same ratio in which economic uncertainty is diminished is the credit insurance policy. While credit departments, upon which merchants rely to avoid poor risks, are effective in eliminating the more apparent uncertainties, there remain large credit losses that cannot ordinarily be anticipated. Abnormal business conditions, depression, failure of customers, all may contribute to changing the promise of a prosperous year into a series of business disasters. It is possible, of course, to discount bad debts by accumulating a fund to provide for them, or by adding the expected loss to the cost of goods. This procedure may be satisfactory during a normal year. In an unusual year, however, the loss of one large account may wipe out the profit on a hundred others. This economic uncertainty can be eliminated by credit insurance, which provides a contract of indemnity promising to reimburse a wholesaler, manufacturer, or jobber for these unusual losses incurred by him through the failure of his customers to meet their obligations.

The importance of the credit insurance development can be most graphically realized by considering that the total credit loss over a period of years aver-

ages greater than the fire loss, although the larger portion of such credit loss can be expected and is therefore not regarded within the scope of credit insurance, which deals with the unusual loss. Fundamentally, this form of insurance tends to decrease failures, strengthen confidence in business stability, and offer increasing resistance to periodic economic depressions.

8. *Community benefits of insurance.*—While insurance primarily protects the individual against economic uncertainty, it also has a close bond with community interests. The effect of becoming insured is to anticipate a possible happening and to prepare for its occurrence. When one knows an unpleasant event may happen, yet is protected from all but a small percentage of loss if it does come, he feels an emancipation from fear of the future which reflects itself in making him better able to cope with immediate problems. Life insurance provides an even wider and more humane perspective. It reaches beyond the life of the insured and expresses concern for those dependent upon him. Provision is thereby made for their care after the death of the insured. The feeling of responsibility so kindled cannot help but strengthen family relationships and the community spirit. Other forms of insurance offer many similar benefits to society in general.

Life insurance, workmen's compensation insurance, and accident and health insurance relieve the public of much of the expense that would ordinarily be a

charge upon the community, by caring for the dependents of breadwinners, whose death or disability would otherwise leave these dependents little or nothing upon which to live. By means of annuity insurance, also, old age can be robbed of one of its most potent terrors, the fear of the individual that some day he will be too old to earn a livelihood. The payment of a lump sum to a life insurance company purchases an annuity that guarantees regular repayments to the insured for the balance of his life. Fires, defalcations, failures, explosions, tornadoes, accidents of every type and description, in the past operated to leave many families poor or destitute, if they were not insured against such hazards. By decreasing the number of persons suffering economic disaster by reason of similar happenings, insurance tends to maintain the standard of living of the community.

9. *Encouragement to saving.*—Although few will disagree with the familiar maxims about the benefits of saving and its advantage to the community, not many individuals possess the persistence and determination to put aside at regular intervals some proportion of their income for the purpose of allowing it to accumulate as savings. The bulwark provided by an accessible surplus fund has been too often illustrated to need emphasis, yet of itself it does not appear to offer sufficient inducement to many for the making of a present sacrifice for a future benefit.

Life insurance offers certain convincing reasons for saving, which induce many people to accumulate sums

they otherwise would not have. By receiving notices in advance of the date when premiums are due, the insured acquires the habit of putting aside small sums in preparation for meeting the insurance payment. This habit grows as the amounts in the hands of the company increase, because everyone desires to protect the sum already advanced, which may be lost in part through non-payment, with forfeiture of the policy and a loss of its advantages. A more persuasive factor for saving through life insurance is the fact that life insurance contracts do not permit the insured to borrow on them for several years from the date of insurance. Savings banks, on the contrary, offer easy methods of withdrawal and so serve to weaken the resolution to save.

10. *Prevention of loss.*—One of the general benefits of insurance is that it tends to reduce the possibilities of loss by encouraging the prevention of loss. This factor is of special significance to a property owner, because no money indemnity can completely compensate for a loss. Even in those forms of insurance where the coverage has been made most nearly complete, it has been found desirable, or necessary, to restrict the indemnity to a figure somewhat less than the actual loss.

The value of property destroyed by fire may be replaced, and yet the insured may suffer greatly through the cessation of his business operations and the loss of trade, which are the consequences of the fire. The community also suffers a loss through the

destruction of property and impairment of productive capacity. The individual exposed to risk is interested in risk control because it reduces his costs and losses, and also because it lowers the premium charge that he must pay for insurance. The interest of the state arises from the harmful effects of losses upon the public welfare.

11. *Conservation and property risks.*—The greatest progress in controlling property risks probably has occurred in the field of fire prevention, or fire-insurance engineering as it is called. Inspection services in individual business establishments, and by the officials of a few cities, help to remove some of the causes that start fires. A considerable movement has begun in educating the public and property owners as to the causes of fires. Fire Prevention Week is an annual event in many places. Fire drills take place in schools and factories. Standards of building construction for the purpose of checking and resisting fire have been established, and hazardous conditions existing in many localities have been improved. Fire-alarm and fire-extinguishing facilities have been carried to a high state of development in recent years and their use has been greatly extended. While all these factors have contributed materially to the reduction of fire losses, there continues to occur an appalling destruction of property by fire that totals several hundred million dollars in value, annually.

Other instances of conservation occur in the field of various property risks, to which more detailed at-

tention is given later in the Text. In some cases, the assistance of the law, common or statutory, is utilized to make conservation measures effective. In other cases, coöperative action on the part of interested property owners and insurance companies accomplishes this purpose.

12. *Conservation and personal risks.*—The conservation movement in insurance has emphasized particularly the conservation of life. Piecemeal conservation efforts by city, state, and federal public-health authorities have been carried on for a long time, but no concerted national attention has been given to the problem, and the general public seems to be unaware of the effects of illness, disease, and premature death on the general welfare of the population. Insistent propaganda in special fields, such as that to prevent the spread of tuberculosis, has brought noteworthy results, but this attempt is merely a partial and not a general effort to solve the conservation problem.

In recent years, life insurance companies have established a service whereby their policyholders may obtain yearly a free medical examination. The results that have been produced indicate that the mortality savings thus effected more than pay the cost of the service. The plan has not been developed broadly and there is not as yet a fully aroused and intelligent public interest in the United States on the question of life and health conservation.

More significant from the viewpoint both of results

and of methods have been the developments of the last ten years in the field of accident prevention. Comparatively little was done in the way of accident prevention before the introduction of workmen's compensation. There were, indeed, factory inspection laws, many of them dead letters, however, and there was some attempt in the more progressive industrial states to deal with the problem of industrial accidents from a prevention standpoint.

But the introduction of workmen's compensation threatened to place upon industry a heavy burden of accident costs that must surely have been reflected in insurance premiums paid by employers. Hence there arose at once a demand for the prevention of accidents and a reduction of costs by this means. The insurance companies have undertaken accident-prevention work extensively. The states have become more efficient in this work because there has been an aroused public opinion behind it. Employers have combined and coöperated in a great many ways to bring about a reduction of accidents.

13. *Essentials for insurance.*—While supplementing the conservation movements, insurance goes even farther and offers the ultimate security against losses that are not prevented. The purchase of insurance, however, is limited by certain well-defined requirements. The first essential is that the element of gambling must not be present. Otherwise, it would be possible to use insurance as a wagering device to bet against the happening of some particular event.

Primarily, the one who seeks insurance must be subject to a real risk, a danger of loss or diminishment on his property, or a beneficial interest, or an expectation to which he is entitled. The owner of a house, the holder of a mortgage on the house, one holding a lien against the property, all have a right to insure their interest in the premises because, upon its damage or destruction by fire, they would all suffer some loss.

The basis of every contract between an insurance company and an individual or organization rests upon the interest that the party insured must have in the subject matter of the insurance. Simply stated, insurable interest refers to the possibilities of loss to which the insured is exposed. One not having this interest cannot legally uphold a contract of insurance against an insurance company, or recover on a policy. A stranger, further, cannot purchase insurance on the life of another and make himself the beneficiary. It is possible, however, for an insured to make a stranger his beneficiary, as long as the insured himself pays the first premium. It has also been held by the courts that a creditor may insure the life of his debtor. This theory is extended to include the insurable interest that a stockholder has in corporation property. The measure of insurable interest is always the answer to the question, "What will the insured lose by the destruction or reduction of the subject of the insurance, that otherwise he would have a right to enjoy?"

Other essential requirements are as follows:

(a) The risk to be insured must be important enough to warrant insurance, thus eliminating trivial contingencies, with losses that would not result in any substantial disadvantage to the owner but would cause the insurance company much inconvenience.

(b) The insurance company must accept a large number of risks, because only by a combination of many risks is a substantial advantage to be gained by spreading the element of chance over a widely diversified area.

(c) It must be possible for the company to arrive at an approximate mathematical calculation as to the extent of the hazard, so as to reach an equitable and scientific basis for premium charges.

(d) The cost of the insurance must not be prohibitive, otherwise it would pay the one seeking insurance to run the chance of loss, and the risks accepted would be borne only by a small group.

14. *State supervision.*—Since the business of insurance concerns so many people and so much of their property, it is generally subject to state supervision as a matter of public policy. The insurance companies are required by the state to set up reserves, based upon their premium income, for the purpose of paying claims. It is the aim of the various states that have passed insurance laws to protect the great mass of people who are interested in these reserves, and upon which they are dependent in great measure. Insurance companies frequently are required to deposit funds with the state, which

serve as a guaranty to policyholders. The companies must also agree to furnish financial statements, permit examinations of their books, place certain provisions in policies, and comply with numerous state department regulations.

State regulation affects not only the insurance company, but also the actions of insurance salesmen —that is, agents and brokers, particularly the manner in which they present the relative merits of different companies, interpret policy provisions, and handle the relationships of the companies with their customers.

REVIEW

Outline the fundamental nature of insurance.

Name the two classes into which insurance risks may be grouped and give three subdivisions of each.

Discuss the sources of economic risks.

Discuss the community benefits of insurance.

How has insurance aided in the conservation of property risks and personal risks?

Explain how insurance neutralizes economic risks.

List four essentials of insurance.

Explain state supervision of insurance.

Note—The reviews throughout this volume are for the personal convenience of the reader in testing his understanding of the chapter. It is not necessary or desirable for subscribers to submit written answers to the Institute except in a case where they may feel uncertain as to their grasp of the question under consideration.

CHAPTER II

INSURANCE COMPANIES AND THEIR FIELDS

1. *The insurance carrier.*—In Chapter I reference was made to the insurance company as the organization that collects premiums from the insured and pays losses to the insured. The general view is that the company is distinct and separate from those whom it insures. If proper consideration be given to the true functional relationship of the company to the insured, this conception is found to be faulty, because it neglects to emphasize the mutual character of the insurance fund. The company, after all, is only a formal organization, or a structure, through which the various members insure one another. The premiums out of which uncertain losses are paid come from the whole group insured, and are returned to those suffering unexpected loss.

The "company," therefore, functions merely as a go-between or administrative agency. The more technical but more accurately descriptive term for this agency is the insurance carrier, or that organization which, in a sense, carries the composite risk of the group. The use of this term is advisable, furthermore, because it is of a broader significance than "company," the latter being associated, in most

minds, with a corporate form of organization. There are many agencies performing the insurance function in an acceptable manner, which are not corporations.

Although the mutual character of the insurance fund is always to be emphasized, it is necessary, when the actual operation of the insurance carrier is being considered, that the company be viewed in some respects as a distinct and formal organization dealing with its policyholders. That various policyholders may have a reasonable guaranty of realizing their expectations under the insurance plan, their rights and obligations must be set forth in a formal contract between each insured and the company. Two general principles have been evolved with reference to this contract and they are applicable, with only minor modifications, in all fields of insurance. They state that the insurance policy is a personal contract, and that it is a contract of indemnity.

The significance of the former principle lies in the fact that the insurance carrier promises reimbursement to a particular person in case a given loss occurs. To illustrate, a policy may relate to the loss of property through fire, but it protects a given individual, on the theory that the risk of loss is determined, in part, by the character of the person who seeks insurance protection. A transfer of the policy to another individual, in case the property changes hands, though covering the same property, can be effected only by the consent of the insurance carrier.

The contract is one of indemnity because it pur-

ports merely to replace the actual financial loss sustained. It follows, as was brought out in Chapter I, that the insured must have an insurable interest in the subject of insurance, or such an interest that the occurrence of the event insured against will bring him financial loss.

2. *Types of insurance carriers.*—Insurance carriers are classified logically according to their general functions, manner of operation, organization and purpose. All insurance carriers can be grouped within the following classification:

(a) Stock companies
(b) Mutual companies
(c) Reciprocal underwriters or interinsurers
(d) Lloyds
(e) Government or state funds

3. *Stock company.*—The stock company, which is found in all fields of insurance, obtains the largest portion of the premiums paid for risk coverage. Like any other corporation, its primary purpose is to earn profits for the benefit of its stockholders. Among the outstanding features of this type of organization are the following:

(a) The insured is charged a definite premium, in return for which the company undertakes to pay all losses resulting from the risks specified in the policy issued.
(b) If the premium income should be insufficient to pay all losses, the insured is not subject to any demand from the stock company for a further contribution beyond the original premium

charged. The company also has a substantial surplus as an additional guaranty to the policyholders that all future obligations will be met.

(c) The general aim of the stock company is to transact business throughout the entire country. Risks are thereby spread as widely as possible, with the consequent better operation of the law of averages in favor of the company.

(d) The stock companies that write property insurance maintain an extensive inspection service in order to keep premium charges at a relatively low level. The purpose of this service is the prevention of losses by ascertaining whether property is kept in good condition, and to encourage precautionary measures on the part of property owners. Obviously, the prevention of loss must cause a reduction of rates.

(e) Because the stock company is operated to make profits, stockholders seek to protect their investments and dividends by demanding the most efficient management. This protection of the stockholders' interest benefits policyholders as well, by reducing operating expenses and thereby effecting lower premium rates.

4. *Mutual company.*—The mutual insurance carrier, like the stock company, is organized as a corporation. However, essential differences distinguish these two forms of insurance carriers. Under the mutual plan, every policyholder becomes a member of the corporation. If the collected premiums exceed the amount needed to pay losses, the members receive the benefit of the saving by a refund of a portion of their premiums. If the amounts collected

are not large enough to pay the losses and no surplus has been previously accumulated, the members of the mutual company will be called upon to pay an assessment sufficient to satisfy the deficit. The amount that each policyholder is assessed depends upon the premium he has paid. The assessment feature does not apply to life insurance companies nor to the other types of mutuals discussed subsequently that operate under provisions of the law waiving the right of assessment.

There are several types of mutual organizations. The principal ones are as follows:

(a) Local fire
(b) Factory fire
(c) Casualty
(d) Life

5. *Local fire insurance mutuals.*—The local fire insurance mutual usually is organized in some county or town to protect a group of local property owners. This form of insurance carrier operates in a restricted territory, under a management familiar with the hazards assumed. Due to this localized character of the risk coverage, the moral hazard is a negligible factor in rate calculations. On the other hand, because of the small scale upon which the company operates, expert employees cannot always be hired, because their employment would involve too great an expense. As a result, the mutual company's essential method of operation is the payment of losses with no serious scientific effort made to prevent their

happening. Furthermore, because these organizations operate in a restricted territory, they are unable to obtain the benefit derived from a wide distribution of risks.

6. *Factory fire insurance mutuals.*—One type of mutual fire insurance company that has met with unusual success is the factory or mill mutual. Companies of this type were organized originally to reduce fire insurance premiums for a select group of property owners—factory operators—and began business with the excellent idea that they would prevent every possible fire loss and pay insurance for the few losses that could not be prevented. They have had a most successful record and have attained a high standard in the work of fire prevention.

The plan under which this type of mutual company operates is to require members to pay premiums in excess of the amount expected to be distributed for losses. At the end of the year a dividend is paid, and frequently there have been rather large refunds.

7. *Casualty insurance mutuals.*—The development of casualty insurance resulted in mutuals being organized to conduct some branches of this type of risk coverage. The casualty insurance mutuals are conducted in the same general manner as other mutuals and are subject to the advantages and disadvantages of this general group without any important difference.

8. *Life insurance mutuals.*—In life insurance, mutual companies have gradually developed until

their number and the amount of business written by them exceed those of stock companies. With the exception of the fact that the policyholder in a mutual company receives a participating policy, there is little distinction between the mutual and the stock life insurance company. Even this difference is reduced in large measure when the dividends of the life insurance company stockholders are limited to a definite figure, such as six per cent, and the stock company issues participating policies.

The outstanding features of mutual organizations are as follows:

(a) Profits or savings go to the policyholders and not to the stockholders.
(b) The policyholders theoretically control the mutual.
(c) Although mutual companies can sometimes obtain a very good selection of risks, this advantage does not persist when the mutual organization becomes larger and operates over a broader field.
(d) The small mutual organization is limited in its operations to the payment of losses, with no emphasis laid upon their prevention. There is also great risk in the event of a possible catastrophe, to which the small mutual is exposed because of the local character of its field.
(e) If the policyholder surrenders his membership in the mutual, he loses all rights to dividends out of the surplus, except for the dividends declared during the time his policies were in force.
(f) Since the policyholder's interest in the mutual organization is direct, the moral hazard may be largely discounted.

9. *Interinsurer, or reciprocal underwriter.*—In a sense, the reciprocals are a development of the mutual plan idea. Interinsurers, or reciprocal underwriters as they are otherwise called, are individuals united in a group for the purpose of insuring one another. This type of carrier is not an incorporated body. It functions as a joint venture between the various policyholders. The work is usually conducted by one person who is called attorney-in-fact and who transacts business for the underwriters. He is frequently paid a certain percentage of the business written, and out of this the expenses are paid. One field in which interinsurance seems to have operated successfully is in the insurance of department stores. These stores are usually located in the most congested districts of large cities and might otherwise find it difficult to obtain a sufficient amount of insurance.

The entire management of the reciprocal, as noted in the previous paragraph, is subject to the control of the attorney-in-fact, limited only by the terms of the organization and the written agreements expressed by the powers of attorney given him.

The business is supposed to be conducted at cost and, therefore, as in the mutuals, any balance that remains after losses are paid is returned to the policyholders. The essential difference between a mutual and a reciprocal can be explained as follows: A policyholder in a mutual is entitled to dividends only as long as he remains a member of the mutual or-

ganization. The amount of dividend usually is less than the total surplus available. If the policyholder ends his connection with the mutual, he has no further interest in the surplus. In a reciprocal, the profits, if any, are theoretically divided at the end of each year, and each policyholder is credited with a share in proportion to his premium.

Some of the objections to reciprocals are:

(a) Since the primary purpose of the reciprocal is to obtain insurance at as low a cost as possible, there may be a tendency to restrict expenditures, even though such expenditures aim to prevent losses.
(b) The cost of a policy is indefinite, as the members are liable for assessment.
(c) The almost total control which rests in the hands of the attorney-in-fact results often only to his profit and the insolvency of the company he manages.
(d) Unless there is a sufficient premium income, the organization may become insolvent as the result of a catastrophe loss.

10. *Lloyds.*—A type of insurance carrier somewhat different from any of those previously discussed in this chapter is a Lloyds association, which takes its name from the famous Lloyds of London. It is an organization formed by a number of individuals who agree to accept risks individually for an agreed premium, each of the insurers becoming personally liable for the amount of insurance for which he subscribes. It is, in substance, insurance written by individuals, as contrasted with insurance written by

companies or associations. One individual, however, has no responsibility for the fulfillment of the obligations of the others joining with him on the same risk.

While such associations in the United States are found particularly in fire and marine insurance fields, Lloyds of London will accept risks of every kind and class. The membership of Lloyds of London is carefully selected and deposits are required for the security of policyholders, so as to protect against the insolvency of a member and the consequent inability on the part of the insured to recover that percentage.

Risks are placed with members of Lloyds by brokers who prepare a proposal of insurance stating the amount of insurance desired, the risk, and the parties in interest. The proposal is then signed by various underwriters, who are members of Lloyds, by initialing the agreement for whatever proportion of the risk they wish to assume. The policy issued as a result of this arrangement contains a statement of the percentage of the risk accepted by the various members who are parties to the contract. In practice, a group of underwriters will appoint one individual to act as their agent, thus eliminating the necessity of obtaining the signature of each of the underwriters. The value of the policies depends upon the underwriters who sign them.

The advantages of this form of organization are:

(a) Individuals of large financial resources are often underwriters on policies, with unlimited liability.

(b) If the business is limited to some specific line, careful selection of risks is possible.

The principal objections made to such associations are:

(a) The security of the organization depends entirely upon the integrity of the individuals who compose it.
(b) Some organizations, by permitting members to limit liability, prevent full recoveries by the insured.
(c) Operations cannot be regulated easily by the state government because of the individual nature of the contract.
(d) Any insured accepting a Lloyds policy in the United States, if the organization is not permitted to do business in his state, is confronted with great difficulty in collecting his insurance in the event he suffers a loss.

The last mentioned objection operates as a serious disadvantage. The insured would have to enter upon involved legal procedures. Actions at law would have to be commenced by him against the members of Lloyds who signed the policy. He would have to bring his suits in the state in which Lloyds is organized, unless there is an agent in the state in which the insured resides. The insured would also have to sue each one of the underwriters individually. Thus, if thirty underwriters have signed the policy the same number of law suits would be involved.

11. *State insurance.*—The most successful form of state insurance in the United States has been the

"state fund," organized for the insurance of the compensation risk. State insurance is an insurance enterprise operated by the state or nation, the government assuming liability for the payment of losses. Some state funds have been very successful, others only moderately so. National government insurance of marine risks was extensively adopted during the war and served to supplement effectively the efforts of private companies to supply the large amount of insurance then demanded.

The largest venture of the government into the insurance field found expression in the War Risk Insurance Act, which, in addition to providing for family allowances and allotment and compensation for death or disability, granted benefits in the form of voluntary insurance.

The outstanding features of state funds are as follows:

(a) Sometimes they operate at a lower cost than private organizations, because the expense of maintenance is lower, due to the absence of payments for agents' commissions, and the handling of the work in state buildings and by state employees.

(b) As in the case of some mutuals, the tendency of the state funds has often been to provide for the payment rather than for the prevention of losses.

(c) The state must bear the ultimate burden, if there is any deficiency between premiums collected and losses paid, in the absence of provision for assessment.

12. *Self-insurance.*—While self-insurance cannot be classified in the same group with formal insurance carriers, it represents the attempt of an individual subject to a risk to set aside periodically sums that, in time, will provide a fund for reimbursing him for any loss that may in the meantime occur. The plan is feasible, in general, only for very large business organizations whose risks are widely diversified and whose properties are not all subject to loss as a result of the same catastrophe.

A railroad company, for instance, with holdings extending through several states and covering a variety of insurance risks, might find it advisable to carry its own insurance against potential losses. It can thus self-insure itself by accumulating its own fund. Such a plan, however, is plainly inadvisable for the average property owner in possession of only one or a few buildings, who cannot obtain the operation of an insurance average because of the concentrated character of his holdings.

13. *The rating function.*—Any discussion of insurance carriers is not complete without an analysis of their three most important functions, that is, the rating function, the insuring or underwriting function, and the administrative function.

The purpose of the rating function is to establish a system of rates to be charged to the insured for carrying his burden of risk, that is, for transferring from him to the insuring agency the liability for financial losses associated with the occurrence of un-

certain events. A satisfactory rating system must evidently be adequate and equitable.

Adequacy is a prime essential, because, unless the premium charged for insurance furnishes the insuring agency with income sufficient to pay all losses and all expenses of administration, the whole structure breaks down. Insurance is then not what it has been defined to be—a means of distributing the unexpected losses of the few among the many exposed to such losses, and the substitution thereby of certainty for uncertainty. This condition of adequacy of rate emphasizes the fundamentally mutual character of insurance.

Second only to the requirement of adequacy is that of equity in rates. Not all buildings are worth the same amount, nor are they all equally subject to the hazard of destruction by fire. One house may be of wood construction, while another is of concrete; one building may be inspected for fire possibilities, have watchmen, a fire-alarm system and fire-fighting and extinguishing equipment, while others have none of these. To be equitable, insurance rates should measure the contribution of like properties to the total fire loss. They vary, therefore, with the varying possibilities of loss among different types of property.

In its attempts to secure dependable averages, the company finds it necessary to classify risks into groups that are similar within themselves, and to estimate its loss experience for each group separately.

Without this separation into like classes, a company might be insuring dwelling houses and factories against fire at a uniform rate of premium, and might be making a fair profit on the total business, whereas the separation of this business into its component parts might allow a large profit on the dwelling risks and show a loss on the factories. This analysis would indicate the desirability of a readjustment of premium charges on the two classes of risks.

14. *Rate-making associations.*—To carry out the rate-making functions adequately, rate-making associations have been formed in many instances. Coöperation among underwriters in the form of rate-making associations is as much an economic necessity as in the case of railroad traffic associations, steamship pools, export associations, lumber dealers' associations, and trade unions. The necessity arose because of rate wars, which threatened the solvency of the various parties engaged in struggles for business at inadequate, profitless rates.

The organization of rate-making associations, a coöperative movement in the field, is limited principally to fire insurance companies and casualty companies. It has as its primary purpose the protection of the business of insurance by preventing the writing of policies at inadequate rates. This purpose has been expanded and now includes numerous other services of value to the members. The introduction of state rating laws, which require that rates, policies, and underwriting practices shall be super-

vised by state superintendents of insurance, accelerated the growth of the associations.

Rate-making organizations are divided into national and local associations. The national association acts in an advisory capacity to the local association in that it prepares the rates, makes the underwriting rules, prepares policy forms, and carries on national educational campaigns to reduce losses. The stock companies writing the particular line over which the association has jurisdiction usually constitute its membership. Sometimes it includes mutuals and reciprocals and the state funds, as well.

The main features of these organizations are:

(a) Rates are determined for all the members on the basis of the total experiences of the member companies.

(b) Uniform commissions are required to be paid to agents and brokers.

(c) Information as to risks can be obtained through a central organization, which sometimes aids in the adjustment of losses distributed among a number of companies. Likewise, if several companies have insured the same risk, instead of each company's duplicating the other's effort by sending its individual inspector, one can report for the benefit of all.

(d) Realizing the advantages of standardized policy forms, the associations have introduced such forms voluntarily, or in some cases by the enactment of state laws. This practice has been extended to include the standardization of the endorsements and clauses to be used by the various companies.

(e) The associations also operate to eliminate improper practices, the penalty for which is expulsion from the association and loss of its advantages. A special committee also functions within each association to guard against ill-advised legislation affecting the insurance business, and to support the introduction of favorable laws. The public is educated, as well, by means of national publicity campaigns, educational courses in safety work, and the introduction of safety devices.

Some of the leading national rate-making associations now functioning are the National Board of Fire Underwriters, National Bureau of Casualty and Surety Underwriters, National Council on Compensation Insurance, and National Automobile Underwriters' Association.

15. *The insuring, or underwriting, function.*— Even when problems of rate-making are settled, the business of insurance is not yet established. Rates may be quite adequate and yet the insurance plan may be defective. The essential requirement of the insurance company, as underwriter, is to guarantee that the losses for which it is liable shall always approximate closely the probable losses on which its premiums are based. Wide variations between expected and actual losses may threaten the solvency of the company, which is measured by the adequacy of the mutual insurance fund created from premiums to pay losses that actually occur.

Most premium rates in fire insurance, for example,

contain a small charge for conflagration losses, since past experience has shown that large cities are subject to sweeping conflagrations from time to time. A company that selects all its risks in a city subject to such conflagrations may involve itself in unusually heavy losses that cannot be met from premiums. Here, again, we are met by the problem of producing average results in loss experience, of reducing to a minimum the variations between actual and expected losses.

The problem is solved in any field of risk by the combination of a large number of risks (individual subjects of insurance), and, in many cases, by a distribution of risks geographically, or on a time basis. In fire insurance, for example, both are necessary. The company may select for insurance only a limited number of properties in a given conflagration area, the limits being dependent on the size of the company and being controlled by its loss experience. But even geographical distribution at times is inadequate, and the fire insurance company must therefore accumulate a surplus from which unusual losses in given years are paid. The principal function of the surplus, therefore, is to produce a balance between years of heavy and of light losses.

Variations in loss ratios of the most dangerous nature are brought about by a failure to perform the underwriting function properly. Variations that may threaten the solvency of the company may occur, however, for other reasons. The management

may be carrying the business more with a view to profits than to the performance of the insurance function. Rates may be inadequate, or variations in hazard may occur that are entirely unusual and could not have been accounted for in the experience used as a basis for rate-making. For the latter reason, in particular, it is necessary in nearly all cases that rates shall contain a margin of safety above the amount necessary to cover estimated expenses and losses measured by past experience.

16. *Agents and brokers.*—An insurance carrier that operates over a wide territory must obtain business in various localities throughout the United States for the purpose of distributing its risks. The home office of the insurance company is the center of all its operations. If the extent of the business warrants, the company may divide the country into districts, placing each in charge of a general agent or branch manager. The general agent in this case acts only as a field agent representing the home-office organization, making contracts with local agents or subagents, and being subjected to supervision by the home office.

The local agent engaged in soliciting property insurance is that representative of the company who directly writes the business. His acts and his knowledge are generally considered the acts and knowledge of the company he represents, although certain limitations are placed upon his authority. His judgment in accepting a risk is largely depended upon by

the company. He usually has a certain amount of control over the business he writes and the clientele with whom he deals. Unlike the life insurance agent, he has policies in his possession that go into force when countersigned by him.

In many instances, the purchaser of insurance retains a person to deal with the agent. This person is called a broker. The broker, as contrasted with the agent, is the agent of the insured and not of the company, even though he derives his income in the form of commissions directly from the latter. The insured, therefore, is generally responsible for the acts of the broker, while the company is usually responsible for the acts of an agent. The broker solicits the insurance from the property owners and places it with the company concerned, either directly or through an agent.

Life insurance agents are recruited in the same general manner as in property insurance. Similar methods are used also in the accident and health fields. Acting through the authority of a central home office, there are general agents in supervisory control of the actual soliciting of prospective purchasers of life insurance policies.

The branch-office system is also employed when the business is organized according to the foregoing method. Where branch-office managers are in control, they operate with powers more limited than general agents, because the branch managers are directly under the supervision of the home office, while the

general agents usually manage their territories independently, as long as they produce satisfactory results.

The active solicitation is done largely by subagents employed by the managers and general agents. Under the general agency system, these subagents are really employed by the general agent, although they may be considered legally as agents of the company. They enter into a contract with the general agent whereby they agree to certain terms of employment, and receive in return from him an initial commission for insurance policies they sell, and renewal commissions on subsequent premiums. Under the branch-office system, the agent receives his commissions directly from the company.

There has been an organized movement in recent years among life insurance solicitors to raise the standards of the profession, and to make its membership an active force in the education of insurance needs and in the organization of a "service" that will fit the policy to the requirements of the insured. This step has been, in part, an answer to criticism directed against life insurance companies because of the expense of writing their insurance. A large element that contributes toward this expense is the commission paid to the solicitor. It is common for the company to pay the subagent over 50 per cent of the first premium on ordinary life policies, and five per cent on renewal premiums for about nine years as his compensation for obtaining the policy.

An experiment is now being tried by one life insurance company to eliminate a large share of this cost by substituting the method of selling by advertising for that of selling by solicitors. It is too early in the experience of this company to know what the outcome will be. Neither the success nor the failure of the plan has as yet been demonstrated, though the growth of the company through accessions of newly insured individuals has not been rapid. The majority of the life insurance companies, as well as other insurance companies, maintain that insurance cannot be written except through personal solicitation by agents or brokers.

REVIEW

What is an insurance carrier?

Compare stock companies with reciprocals.

Name the various types of mutual organizations and state how a mutual company operates.

Discuss the characteristic features of a state fund.

State the tests for a satisfactory rating system.

Discuss the essential features of a rate-making organization.

Distinguish between general agent, subagent, and broker.

CHAPTER III

LIFE INSURANCE POLICIES

1. *Life insurance and its needs.*—Life insurance is the most important of the varied branches of insurance. Its importance arises from the many needs that it serves, the principal of which are:

(a) Protection of the family
(b) Old-age protection
(c) Business protection

2. *Family protection.*—Life insurance provides an immediate estate upon the death of the insured. His family is thereby somewhat indemnified for the loss of his earnings, depreciation in the assets of his estate, and various incidentals such as taxes, the cost of settling the estate, and burial expenses. It is also possible for the insured to provide protection for ill or aged parents, young brothers and sisters, or other relatives or persons who rely upon him for support. The insurance proceeds may save his wife from financial worries, and enable his children to continue their schooling, or be aided in their business careers.

Another family problem that life insurance can alleviate may be illustrated by the following example. Suppose the insured has purchased a home for his

family, paying a part of the price in cash and borrowing the balance on mortgage. If he has not arranged his affairs so that there is a sufficient income after his death to meet the mortgage payments, the mortgage might be foreclosed and his family deprived of their home. A life insurance policy would avert the situation by providing immediate funds for such a contingency.

3. *Old-age protection.*—An individual's aim may be to provide for his own old age. At the same time, he may desire to protect his children until they become self-supporting. Life insurance, in the form of a long-term endowment policy, is one manner of solving his problem. He may thus be assured of receiving a substantial sum of money upon reaching a specified age, such as 60 or 65 years, when an individual's earning capacity in most cases is at its lowest ebb. In the event of his death before the termination of the endowment period, his dependents would receive the face amount of the policy. The interests of both the insured and his dependents thus would be adequately served.

4. *Business protection.*—The success of a partnership depends upon two factors—each partner's individual investment, and his particular ability. If a member of the partnership should die, the surviving partner might be forced to liquidate the business. This necessity often occurs when the deceased partner's heirs desire to withdraw their financial interest. As an alternative, the surviving partner might be re-

quired to admit the heirs of his deceased associate into the business so as to retain that financial interest. These situations are avoidable by the purchase of insurance to cover each partner's interest in the life of the other member of his firm. The surviving partner could thereby pay the share of the deceased partner to his estate from funds obtained through the purchase of life insurance policies that have been made payable to whichever partner survives the other.

While the above illustration applies to a partnership, life insurance can be used also to protect large corporations against loss occasioned by the death of an important official. This protection can be applied likewise to losses resulting from the death of individuals whose special abilities are really corporate assets. For example, suppose a firm has hired a chemist to do special research work. The company undertakes to invest $100,000 in the experiment. The death of the chemist before the completion of his work might mean the loss of this investment. Protection against such loss can be obtained by means of a life insurance policy on the life of the chemist, payable to the employer if the death of the chemist occurs prior to the completion of the investigation.

5. *Selecting the proper policy.*—Two considerations concern the prospective purchaser of a life insurance policy. He is interested in knowing how much his insurance will cost him in the form of an annual premium, and what the policy will secure for him and his dependents in return. The differences

between these two considerations are differences of personal need rather than of actual quality, because all life insurance policies are based upon equivalents obtained by mathematical calculation. The problem is to ascertain the type of policy that will fit the individual circumstances; not that any one form of policy is superior to any other, but rather that the one selected might serve a particular purpose, where another form of policy might not.

6. *Types of life insurance policies.*—A wide range of different types of life insurance policies is available. For the present purpose they may conveniently be classified as follows:

(a) Term insurance
(b) Ordinary life insurance
(c) Limited payment life insurance
(d) Endowment insurance

7. *Term insurance.*—A term insurance policy is a contract by which the insurance company promises to pay a stipulated sum of money upon the death of the insured, provided death occurs within a predetermined period—one year, five years, ten years, etc. If the insured should outlive the specified period, the life insurance company is no longer liable. The insured pays simply for protection during that period. Term policies are sometimes purchased by creditors on the lives of their debtors. Most frequently, they are purchased by persons who have an immediate need of a large amount of insurance, but who cannot afford to pay the higher premiums called for under

other types of policies that provide permanent insurance protection. These purchasers buy term insurance to tide them over a period of unusual need for protection. Often, the insured expects to exchange his term policy for one of another form, when his financial circumstances improve.

The term insurance policy has one serious defect. Suppose the insured has purchased a one-year term policy. At the end of the year he might find it necessary to renew his policy. If his physical condition has changed adversely during the previous year, the insurance company would reject the risk and not issue a new policy. To avoid this situation, some life insurance companies issue term insurance policies with an automatic renewal privilege that excludes the necessity of the insured undergoing further medical examinations. Furthermore, many term policies contain a clause permitting the insured, without further

TABLE 1

ILLUSTRATION OF LIFE INSURANCE PREMIUMS PER $1,000 OF INSURANCE

Quoted by a Stock Company and a Participating Company

	1-Year Term (Renewable)		Ordinary Life		20-Payment Life		20-Year Endowment	
Age of Insured	Non-Participating	Participating	Non-Participating	Participating	Non-Participating	Participating	Non-Participating	Participating
25	$ 7.84	$11.82	$14.75	$21.49	$22.18	$31.83	$39.96	$49.19
30	8.14	12.59	16.89	24.38	24.41	34.76	40.31	50.13
35	8.65	13.65	19.71	28.11	27.20	38.34	41.02	51.47
40	9.46	15.22	23.40	33.01	30.65	42.79	42.38	53.49
45	11.42	17.59	28.35	39.55	35.27	48.52	44.70	56.69
50	15.00	21.67	35.21	48.48	41.67	56.17	48.41	61.90
55	20.80	28.63	44.48	60.72	49.93	66.69	54.19	70.23

medical examination, to convert his policy to any one of the three other forms of policies subsequently discussed.

The advantages offered by term insurance are:

(a) The annual cost is small, as can be seen from Table 1.
(b) It offers initial maximum protection for a given sum.

The disadvantages of term insurance are:

(a) Although the initial cost is small, the premiums increase with age, until in later life they may become prohibitive.
(b) Unless the insured dies within the specified term of the policy, the beneficiary is not entitled to the insurance proceeds.
(c) If the term policy does not contain the renewal or convertible feature, at a time when the need is greatest the insured may find himself without insurance because of his inability to pass a medical examination.

8. *Ordinary life insurance.*—The term policy should not appeal particularly to the individual who has a steady earning capacity that can be expected to continue throughout life. The ordinary life insurance policy appears to be the most satisfactory type under such circumstances, because it offers permanent, and not temporary, protection. The whole life, or ordinary life insurance policy, as it is called, requires the insured to pay an annual premium during his life. The face amount of his policy is payable whenever he dies. Obviously, such insurance costs

more per year for the same amount of protection than term insurance, as can be seen from Table 1 on page 45.

The advantages offered by ordinary life insurance are:

(a) Permanent protection is secured at a reasonable cost.
(b) The payment of premiums is distributed over life, approximately in accordance with the insured's earning power.
(c) Insurance protection is combined with saving. The insured may borrow on his ordinary life policy, as will be explained in a later chapter.

The disadvantages of ordinary life insurance are:

(a) On account of the cost, not as much insurance for the same amount of premium can be obtained as under term insurance.
(b) Since the premiums must be paid for life, there is the possibility that the insured's earning power might diminish or cease when he reaches an advanced age and the premium payments may therefore become a hardship at such a time.

9. *Limited-payment life insurance policy.*—The limited-payment policy provides for payment of the face amount of the policy at the death of the insured, but premium payments are limited to a definite period. For example, under a limited-payment life policy, such as the twenty-payment life policy, the insured will be required to pay premiums for twenty years, after which the obligation to make further payments ceases. Whether he dies before or after the

twenty years has elapsed, his beneficiary receives the face amount of the policy. The annual premium for limited-payment life insurance is higher than term insurance or ordinary life insurance, as shown by Table 1 on page 45.

The advantages offered by limited-payment life insurance are:

(a) The number of premium payments is fixed and the policyholder knows what the maximum cost of his insurance will be.
(b) The premium payments are made during the early years of a man's life, when his earning capacity is more secure. There is, therefore, less possibility that payment of the insurance premium will become a burden.
(c) The savings feature is greater under this form of life insurance policy than under the ordinary life insurance policy, as will be shown in a later chapter.

The disadvantages of limited-payment life insurance are:

(a) Since the premium is higher, less insurance can be purchased under this plan than under the whole-life or term plans.
(b) If the insured dies at an early age, he would have paid more, in effect, for the same amount of protection than he would have had to pay under either whole life or term insurance.

10. *Endowment insurance.*—An endowment policy provides for payment of the amount of the insurance to the beneficiary in the event of the insured's death during a specified period (the endowment pe-

riod), or to the insured in the event of his survival to the end of that period. It will be seen, therefore, that endowment insurance provides in part the same benefit as that obtainable under term insurance. Under endowment insurance there is the additional feature of payment of the face amount of the policy to the insured in the event of his survival to the end of the term specified. Of course, a policy that provides for payment upon either death or survival, during a designated number of years, will cost more than one providing for payment upon death only.

The advantages offered by endowment insurance are:

(a) It combines insurance with the highest amount of savings as will be illustrated in a later chapter. If the insured survives the term of the endowment period, this type of policy provides him with a guaranteed fund.

(b) For the unmarried man who has no dependents an endowment policy will appeal as an incentive toward saving.

(c) A father can provide a fund for the education of his children, or to start them in business at the appropriate time.

The disadvantages of endowment insurance are:

(a) Since the principal sum is payable during the lifetime of the insured, the cost of such insurance is higher than either term, whole life, or limited payment life policies, as Table 1 on page 45 illustrates.

(b) Because of the higher cost of such insurance, the insured usually limits the amount of his insurance.

11. *Single-premium policy.*—Another form of insurance that sometimes is purchased is the single-premium policy. Upon the payment of a lump sum, an insurance company will assume all the liabilities of a life insurance contract, and the insured will never be obliged to pay any additional premiums. This plan is designed to meet the needs of individuals with means, whose wealth may be swept away in some business or speculative disaster, and who seek to protect their dependents against such a contingency by purchasing insurance and paying the cost of such insurance at one time. It can readily be seen that one premium payment, which takes care of the policy for its entire duration, will necessarily be a very large sum in proportion to the amount of insurance purchased.

The advantages of the single premium policy are:

(a) The insured is relieved of the burden of paying an annual premium over a long term of years, or for the remainder of his life. He also knows the cost of the insurance in advance.

(b) The insured has the satisfaction of knowing that his purpose is definitely accomplished, and that no inability of his, in the future, to make premium payments will defeat his dependents' right to the insurance.

(c) The insured may surrender the policy and receive a return of a proportion of the premium, or he can use the policy as collateral for bank loans.

The disadvantages of the single premium policy are:

(a) The large initial payment is beyond the reach of all but the wealthy.
(b) The amount of insurance that can be purchased is limited, because the premium is paid from capital funds instead of income.
(c) If the insured dies at an early age, he has paid more for the insurance than would ordinarily be necessary. There is also a possibility that his estate would have benefited more if the amount paid as a premium had been invested.

12. *Income insurance.*—One of the problems that insurance companies have had to consider is a method of protecting the beneficiary against the dissipation of life insurance funds. The average beneficiary is not accustomed to handling large sums of money. After receiving an insurance fund, it is not uncommon for the beneficiary to invest the money unwisely. To avoid this situation, life insurance companies recommend income insurance.

The life insurance companies have contended that it would undoubtedly be more advantageous if the proceeds of a policy were paid in installments to the beneficiary, instead of in a lump sum. They have made it possible, consequently, for the insured to obtain a policy providing that the proceeds shall be paid to his beneficiary in a number of equal installments.

The advantages of income life insurance are:

(a) The beneficiary is protected against loss of proceeds through fraud, or unwise investment.
(b) If the installments are continuous, the beneficiary is provided with protection for life.

(c) The beneficiary is relieved of the responsibility and expense of managing a fund, because the insurance companies are highly experienced and well qualified to act as trustees for beneficiaries.

The disadvantages of income life insurance are:

(a) The beneficiary may need a lump sum in an emergency, but the plan would not permit payments beyond the specified amount.
(b) The beneficiary may live longer than the period for which the installments are to be paid, unless provision has been made for payment of continuous installments throughout the life of the beneficiary.

13. *Life insurance trusts.*—Since the development of income life insurance, policyholders have given greater consideration to the most effective manner of distributing the proceeds of the insurance that will be paid upon their death. They are interested in ascertaining the manner by which such funds will best serve to furnish support and maintenance to their dependents. As has been previously stated, under income life insurance there is no flexibility of payments. The needs of dependents, however, are not always constant, and the terms of payment in the policy cannot be varied to meet changing circumstances. An unusual situation might arise requiring, at one time, a larger sum than the payments provide, with the result that the beneficiaries would be subjected to privations that the insured would certainly have avoided were he alive. The inelasticity of such

a plan, therefore, limits its apparent utility. The rigidity under which it operates often works a hardship upon the very ones it was planned to aid.

Another method of protecting the interests of beneficiaries that is familiar to many policyholders is one that makes policies payable to the insured's estate, with the proceeds distributed according to the provisions of a will. Here, too, it may happen that dependents and legatees will not derive the intended benefits of the insurance, since the estate of the deceased might be insufficient to meet his obligations, and the proceeds of the policy would therefore be subject to all claims against the estate, such as federal and state taxes, as well as the claims of creditors.

This inelasticity in the income policy, and the danger of leaving funds to the estate, can be avoided by the use of a life insurance trust. All that is required of the insured is to make his policy payable to a trust company, which will administer the insurance fund in accordance with a trust agreement made with the insured. The insured thereby creates an immediate estate in charge of the intimate supervision of an expert administrator, thus prolonging and beneficially extending the insured's own activities in behalf of his family.

The type of insurance trust may be adjusted to meet the conditions of each particular case, as required by an insured. However, the various types of insurance trusts may be grouped under three headings:

(a) *Unfunded Trusts.*—By means of this form of trust, which is most often selected, the insured continues to pay the premiums on his policy and the trust does not begin to function until the principal of the policy becomes collectible.

(b) *Funded Trusts.*—In this instance, instead of paying premiums periodically, the insured deposits with the trustee productive property, such as mortgages and securities, the income from which is used by the trustee to meet premium payments.

(c) *Contract Investments, or Semifunded Insurance Trusts.*—This form requires the deposit, at specified intervals, by the insured, with the trustee, of a sum in excess of the premium required to be paid. In return, the trustee pays the premiums and invests and reinvests the constantly increasing surplus so that, in the course of time, the trust becomes self-supporting or funded.

To take advantage of a trust agreement, it is not necessary for the insured to obtain new policies but merely to amend the beneficiary clause so as to name a trust company as trustee for the dependents. The trust may be made sufficiently flexible to meet the changing needs of the insured's beneficiaries. It is possible thereby to authorize, or direct, payments from principal in addition to disbursement of income received by investment of the principal. The trustee also may be empowered to deal with the executor of the insured's will in supplying necessary cash for the benefit of the estate. The trustee is responsible for investing the principal so as to obtain the maxi-

mum return compatible with safety, and as authorized by the trust agreement.

The advantages of the various types of life insurance trusts are summed up in the seven items given below:

(a) The funded insurance trust prevents lapse of insurance policies for non-payment of premiums during the life of the insured.
(b) Similar to the effect of the income policy, the dissipation of the proceeds of policies payable in a lump sum to the beneficiary is avoided.
(c) It permits a single, uniform plan to be followed for handling the proceeds of policies held by the insured in various life insurance companies.
(d) The insurance trust may give the trustee discretion and latitude, permitting expenditure of part, or all, of the principal of the trust fund if the necessity of the family of the insured should require it.
(e) The securities of a particular trust, being selected with expert care, might enhance in value and thus increase the annual income to the beneficiary.
(f) The insurance trust makes cash immediately available for prompt and judicious settlement of the insured's estate, thus avoiding loss attendant upon forced sales to meet taxes or other payments.
(g) If the trust is revocable the insured can revoke or alter the trust at any time to meet any new contingency that may have developed during his lifetime.

14. *Annuities.*—In addition to selling various forms of life insurance policies, insurance companies

also sell annuity contracts. Under an annuity contract, in consideration, usually, of a lump sum paid by the applicant, the insurance company will pay equal sums of money over equal periods of time. For example, if a man 60 years of age paid $1,000 to a certain stock life insurance company, the company would pay the annuitant $92.57 a year during the life of the annuitant. The apparent return for the money invested is 9.257 per cent. This large yield, however, is possible, due to the fact that the company will pay only if the annuitant is alive. All liability ceases upon his death. Table 2 on page 57 illustrates the annuity rates charged by one of the non-participating insurance companies.

15. *Rate-making.*—Since life insurance is so important to the community, it is absolutely essential that the rates should be calculated scientifically, to guarantee the solvency of the insurance company. Three factors are involved in making life insurance rates. These three factors are:

(a) Expenses of conducting the business
(b) Funds to pay future death claims
(c) Interest earned on the premiums contributed, since the premiums are paid in advance and will therefore earn interest that will aid in paying the future death claims

The expected interest earnings are estimated on a very conservative basis. In many of the leading life insurance companies, the expected interest rate that is used is three per cent. To ascertain the amount of

funds necessary to pay future death claims, the insurance companies have developed mortality tables giving the percentage of deaths expected at any age. The table that is commonly used for this purpose is known as the American Experience Table, and it is shown as Table 3 on page 58.

TABLE 2

ANNUITY RATES—NON-PARTICIPATING

Age of Insured	Single-Premium Life Annuities $100 Annuity	
	Males	Females
25	$1,948.90	$2,004.20
30	1,861.20	1,926.00
35	1,760.40	1,835.30
40	1,646.40	1,731.40
45	1,519.50	1,614.30
50	1,381.00	1,484.50
55	1,233.40	1,343.80
60	1,080.20	1,194.60
65	925.80	1,040.80
70	775.20	887.00
75	633.30	738.20
80	504.60	599.40
85	391.70	474.40

Age of Insured	Single-Premium Life Annuity Installments Purchased by $1,000	
	Males	Females
25	$ 51.31	$ 49.89
30	53.72	51.92
35	56.80	54.48
40	60.73	57.75
45	65.81	61.94
50	72.41	67.36
55	81.07	74.41
60	92.57	83.71
65	108.01	96.07
70	128.99	112.73
75	157.90	135.46
80	198.17	166.83
85	255.29	210.79

TABLE 3

AMERICAN EXPERIENCE TABLE OF MORTALITY

Age	Number Living	Number Dying	Yearly Probability of Dying
10	100,000	749	.007490
11	99,251	746	.007516
12	98,505	743	.007543
13	97,762	740	.007569
14	97,022	737	.007596
15	96,285	735	.007634
16	95,550	732	.007661
17	94,818	729	.007688
18	94,089	727	.007727
19	93,362	725	.007765
20	92,637	723	.007805
21	91,914	722	.007855
22	91,192	721	.007906
23	90,471	720	.007958
24	89,751	719	.008011
25	89,032	718	.008065
26	88,314	718	.008130
27	87,596	718	.008197
28	86,878	718	.008264
29	86,160	719	.008345
30	85,441	720	.008427
31	84,721	721	.008510
32	84,000	723	.008607
33	83,277	726	.008718
34	82,551	729	.008831
35	81,822	732	.008946
36	81,090	737	.009089
37	80,353	742	.009234
38	79,611	749	.009408
39	78,862	756	.009586
40	78,106	765	.009794
41	77,341	774	.010008
42	76,567	785	.010252
43	75,782	797	.010517
44	74,985	812	.010829
45	74,173	828	.011163
46	73,345	848	.011562
47	72,497	870	.012000
48	71,627	896	.012509
49	70,731	927	.013106
50	69,804	962	.013781
51	68,842	1,001	.014541
52	67,841	1,044	.015389
53	66,797	1,091	.016333
54	65,706	1,143	.017396

TABLE 3 (*Continued*)

AMERICAN EXPERIENCE TABLE OF MORTALITY

Age	Number Living	Number Dying	Yearly Probability of Dying
55	64,563	1,199	.018571
56	63,364	1,260	.019885
57	62,104	1,325	.021335
58	60,779	1,394	.022936
59	59,385	1,468	.024720
60	57,917	1,546	.026693
61	56,371	1,628	.028880
62	54,743	1,713	.031292
63	53,030	1,800	.033943
64	51,230	1,889	.036873
65	49,341	1,980	.040129
66	47,361	2,070	.043707
67	45,291	2,158	.047647
68	43,133	2,243	.052002
69	40,890	2,321	.056762
70	38,569	2,391	.061993
71	36,178	2,448	.067665
72	33,730	2,487	.073733
73	31,243	2,505	.080178
74	28,738	2,501	.087028
75	26,237	2,476	.094371
76	23,761	2,431	.102311
77	21,330	2,369	.111064
78	18,961	2,291	.120827
79	16,670	2,196	.131734
80	14,474	2,091	.144466
81	12,383	1,964	.158605
82	10,419	1,816	.174297
83	8,603	1,648	.191561
84	6,955	1,470	.211359
85	5,485	1,292	.235552
86	4,193	1,114	.265681
87	3,079	933	.303020
88	2,146	744	.346692
89	1,402	555	.395863
90	847	385	.454545
91	462	246	.532466
92	216	137	.634259
93	79	58	.734177
94	21	18	.857143
95	3	3	1.000000

REVIEW

State three important needs that life insurance meets.

What are the main differences between the four principal forms of life insurance?

State the advantages of income insurance.

Describe three types of life insurance trusts.

What factors form the basis for the computation of life insurance premiums?

CHAPTER IV

THE LIFE INSURANCE CONTRACT

1. *Nature of life insurance contract.*—When an individual or business enterprise obtains insurance coverage from an insurance company against a determined risk, a contractual relationship is established between the parties. This relationship is founded upon an agreement, expressed by means of a policy or written contract, containing the terms and conditions by which the insured and the insurer will be bound.

While the foregoing is fundamentally true of all types of insurance, a difference exists between the principle underlying property insurance and that underlying life insurance. All forms of property insurance, such as fire, casualty, or marine, are contracts which undertake to indemnify the insured only for the loss sustained. Life insurance, on the contrary, is a contract to pay a definite sum of money upon the death of the insured, regardless of how really valueless such a life may have become in the meantime. Thus, if property worth $10,000 were destroyed and the owner had a fire insurance policy for $20,000, the amount generally paid to the insured would be $10,000. Regarding life insurance, on the other hand,

the courts have held that the value of a person's life to himself is beyond determination. The only limit to recovery under a life insurance policy, therefore, is the maximum amount which the insurance company undertook to assume when the contract was made.

2. *Insurable interest a necessity.*—The doctrine of indemnity applies to life insurance contracts only in the respect that the one obtaining insurance must have an insurable interest in the life insured. Every person has such an interest in his own life and may insure it for any amount acceptable to the insurance company. He may make this sum payable to any beneficiary he desires, regardless of whether or not the beneficiary has an insurable interest in the life insured. An insurable interest, in life insurance, amounts to the possession of such relationship to the person insured, either by kinship, or as a creditor or surety for him, as would justify a reasonable expectation of advantage or benefit from the continuance of his life. A parent thus has an insurable interest in the life of a child and the child in the life of the parent, a husband in the life of his wife and a wife in the life of her husband, a creditor in the life of his debtor, and a business corporation in the life of an important officer or employee.

3. *The application for a policy.*—Before a life insurance policy is issued, the person to be insured is called upon to comply with certain formal requirements as enumerated in the application for the life

insurance policy. This application is usually divided into two parts. The first part relates mainly to the age and name of the applicant, the amount of insurance, the kind of policy requested, and the sum of other insurance carried on his life. The second part of the application contains data comprising the medical examination made by the company's physician, and includes a statement by the applicant regarding his health, habits, and family history.

It is very important that the following points be watched by the applicant in making statements to the life insurance company. A false representation, made either innocently, or with intent to deceive the company, if material, will void the insurance contract, but, if immaterial, will not affect the contract. The general criterion of materiality is the question: "Would knowledge of the facts or information concealed, or misrepresented, have affected the action of the company in accepting or rejecting the risk?" If such knowledge might have caused the company to refuse to issue a policy, or to offer special terms, its materiality is established. If the answers were treated as representations, they need be only substantially true.

The matter of materiality is of no consequence when the insured has breached a warranty in his policy. The insurance contract is voided by the breach. A warranty is a statement that must be literally true. The statement made must be placed in the policy or be included by means of a reference in one of the

terms of the policy. The difficulty regarding warranties is that many of the answers required in an application for life insurance cannot be answered with literal accuracy. Fundamentally, the difference between a warranty and a representation is that the former is an essential part of the contract, whereas the latter is a statement made by the applicant to the insurance company, as an inducement for it to enter into the contract. The distinction between warranties and representations, however, is no longer important in reference to life insurance, because it has been abolished by statute.

By state legislation, many of the provisions found in life insurance policies are required to be made a part of the policy contract. The important standard provisions found in such policies are:

(a) Grace period
(b) Incontestability
(c) Suicide
(d) Non-forfeiture values
(e) Optional modes of settlement
(f) Dividends
(g) Assignment
(h) Reinstatement
(i) Beneficiary
(j) Disability
(k) Double indemnity

4. *Grace period.*—While it is usually provided that the premium should be paid annually, life insurance companies issue policies permitting payments of premiums semiannually, quarterly, or sometimes

monthly. An interest charge is made, however, if the premium is not paid on an annual basis. If the premium is not paid on the date mentioned in the policy, theoretically the policy has lapsed. To avoid this result, a general provision is always found in life insurance contracts specifying the time within which premiums must be paid, following their due date. A period of 30 or 31 days beyond the due date is allowed, which is known as the grace period. The policy remains in full force during this time. If the insured should die during the grace period, the unpaid premium is deducted from the amount payable, and the beneficiary recovers the balance of proceeds of the face amount of the policy.

5. *Incontestable clause.*—To eliminate the possibility that insurance companies, upon various grounds, may contest policies a long time after their issuance, when the insured is no longer present to dispute the case, or, if alive, could not remember the facts, the policy contains a clause specifying that it is incontestable after a stated period has elapsed, usually one or two years. The usual exceptions to this provision are non-payment of premiums and misstatement of age. If the insured has misstated his age, the beneficiary receives the amount that could have been purchased by the premium paid, calculated on the basis of the correct age of the insured.

The incontestable clause has aided the insurance companies as well as the beneficiaries. The number of suits on policies has thereby been reduced consid-

erably. This clause was welcomed by the companies, because they do not benefit by contesting claims.

6. *Suicide clause.*—In addition to the incontestable clause, the policy provides that if the insured commits suicide, while sane or insane, the company, during a limited period after the issuance of the policy, shall not be liable except for the return of the premium paid. This period is limited usually to one or two years after the issuance of the policy.

7. *Non-forfeiture values.*—As demonstrated by the provision for a grace period, the tendency on the part of insurance companies is to prevent forfeitures of policies by the insured. Life insurance is necessarily a contract extending into the future. In time, the policyholder's circumstances may change and he may find it difficult either to pay his premiums on time, or at all. Formerly, default of a payment operated as a forfeiture of the policy and a consequent loss of all the insured's interest in it. This condition has been remedied, however, and replaced by a more equitable arrangement. Policies now contain non-forfeiture provisions, so that if the insured decides to lapse his policy, the companies are required by law to extend certain privileges to him. These non-forfeiture privileges, which are usually allowed in the event of surrender or lapse after the first two or three years, are the following:

(a) Cash surrender value and policy loan
(b) Extended term insurance
(c) Paid-up insurance

8. *Cash surrender value and policy loan.*—To explain these non-forfeiture privileges, we may compare term insurance with ordinary life insurance. In one company, the rate per thousand dollars of insurance at age 30, for a one-year term policy, is $8.14, whereas the rate for an ordinary life policy is $16.89. At the end of one year, the life insurance company's liability on the term policy would be ended if the insured survived. Under an ordinary life policy, however, the company's liability would continue. It would, therefore, be necessary, under the ordinary life policy, to carry a portion of the premium paid as a fund to meet the future liability. This amount is

TABLE 4

CASH SURRENDER VALUES—AGE 35*

Per $1,000 of Insurance

At End of Year	Non-Participating		
	Ordinary Life	20-Payment Life	20-Year Endowment
1	.....	.....	.....
2	.....	.....	$ 50.00
3	$ 22.00	$ 43.00	86.00
4	35.00	66.00	123.00
5	49.00	89.00	162.00
6	63.00	113.00	203.00
7	78.00	138.00	245.00
8	93.00	164.00	290.00
9	109.00	191.00	336.00
10	125.00	219.00	384.00
15	219.00	384.00	664.00
19	292.00	527.00	926.00
20	311.00	566.00	Matured

* Premiums per $1,000 at age 35:

Ordinary life $19.71

20-payment life 27.20

20-year endowment 41.02

Values are from one company only.

TABLE 5

CASH SURRENDER VALUES—AGE 35*

PER $1,000 OF INSURANCE

At End of Year	PARTICIPATING		
	Ordinary Life	20-Payment Life	20-Year Endowment
1	.....	.....	.....
2	.....	.....	.....
3	$ 31.81	$ 54.56	$ 92.50
4	43.02	79.96	133.41
5	58.16	107.52	175.71
6	72.94	133.40	216.93
7	90.61	162.64	262.16
8	108.68	192.77	308.94
9	127.15	223.81	357.35
10	146.01	255.78	407.45
15	233.28	418.33	674.00
19	308.32	568.89	928.91
20	327.58	609.92	Matured

* Premiums per $1,000 at age 35:

Ordinary life $28.11

20-payment life 38.34

20-year endowment 51.47

Values are from one company only.

retained for the benefit of the policyholder, in a common fund called the reserve fund. If an insured, who has an ordinary life policy, desires to surrender his policy after several years, the insurance company will return to him a share of the total reserve carried on his policy. No surrender value is usually available until the end of the second or third year of the policy, owing largely to the item of the original commission, medical examination costs, and other expenses that are attendant upon the issuance of a policy.

The surrender value increases proportionally with the length of time during which premiums have been paid. Tables 4 and 5 illustrate the amount to which

an insured in a stock company and in a participating company is entitled, if he desires to surrender his policy, assuming that he was 35 years old when he purchased the insurance. Incidentally, if the insured does not wish to withdraw the money and cancel his policy, usually he can borrow from the company the amount representing the cash surrender value at a fixed rate of interest, and continue his policy in force.

9. *Extended term insurance.*—If the insured desires, the insurance company will retain the cash surrender value and grant the insured extended term insurance. Under this option, the insured is given

TABLE 6

EXTENDED TERM INSURANCE—AGE 35*

PER $1,000 OF INSURANCE

At End of Year	NON-PARTICIPATING			
	Ordinary Life	20-Payment Life	20-Year Endowment	
	Yrs-Days	Yrs-Days	Yrs-Days	Pure Endowment
1	.....	.....	.....	.....
2	.....	.....	5–323	.....
3	2–177	5–3	10–124	.....
4	3–345	7–212	14–240	.....
5	5–153	10–45	15–	$ 64
6	6–317	12–176	14–	148
7	8–87	14–218	13–	228
8	9–178	16–165	12–	305
9	10–229	18–24	11–	379
10	11–222	19–170	10–	450
15	15–23	25–72	5–	766
19	15–195	30–287	1–	958
20	15–187	Full Paid	Matured	Matured

* Premiums per $1,000 at age 35:

Ordinary life $19.71

20-payment life 27.20

20-year endowment 41.02

Values are from one company only.

protection for a definite number of years, depending on his attained age and the amount of the cash surrender value. The amount of protection is for the same amount as stated in the policy. The protection ceases, however, after the lapse of the term for which the extended insurance was granted. Tables 6 and 7

TABLE 7

EXTENDED TERM INSURANCE—AGE 35*

PER $1,000 OF INSURANCE

At End of Year	PARTICIPATING			
	Ordinary Life	20-Payment Life	20-Year Endowment	
	Yrs-Days	Yrs-Days	Yrs-Days	Pure Endowment
1	.....	.....	.....	.....
2	.....	.....	.....	.....
3	3–209	6–95	10–328	.....
4	4–282	9–37	15–103	.....
5	6–133	11–342	15–	$ 75.16
6	7–293	14–74	14–	155.00
7	9–142	16–144	13–	236.11
8	10–291	18–97	12–	313.88
9	12–7	19–312	11–	388.47
10	13–21	21–81	10–	459.94
15	15–128	25–249	5–	758.80
19	15–261	31–25	1–	956.02
20	15–245	Full Paid	Matured	Matured

* Premiums per $1,000 at age 35:
Ordinary life $28.11
20-payment life 38.34
20-year endowment 51.47
Values are from one company only.

illustrate the amount of extended term insurance to which an insured is entitled in the same companies for which cash surrender values were given in Tables 4 and 5, if he desires to surrender his policy, assuming that he was 35 years old when he purchased it.

10. *Paid-up insurance.*—Should the insured de-

sire, the insurance company will retain the cash surrender value and give the insured a paid-up policy. The insured is not required to pay any further premiums. Since there will be no additional premium contributions by the insured, the amount of insurance provided by the paid-up policy is proportionally less than the original policy. Tables 8 and 9 illus-

TABLE 8

PAID-UP INSURANCE—AGE 35*

PER $1,000 OF INSURANCE

At End of Year	NON-PARTICIPATING		
	Ordinary Life	20-Year Payment Life	20-Year Endowment
1	.....	.....	.....
2	.....	.....	$ 86
3	$ 56	$110	145
4	88	164	203
5	120	217	260
6	151	270	316
7	182	323	371
8	212	375	425
9	243	428	478
10	273	480	531
15	431	755	785
19	527	951	958
20	549	Full Paid	Matured

* Premiums per $1,000 at age 35:

Ordinary life $19.71

20-payment life 27.20

20-year endowment 41.02

Values are from one company only.

trate the amount of paid-up insurance to which an insured is entitled, using the same companies as in Tables 4 and 5, if he desires to surrender his policy, assuming that he was 35 years old when he purchased it.

While this form of option is not frequently selected

TABLE 9

PAID-UP INSURANCE—AGE 35*

PER $1,000 OF INSURANCE

At End of Year	PARTICIPATING		
	Ordinary Life	20-Payment Life	20-Year Endowment
1	.....	.....	.....
2	.....	.....	.....
3	$ 71.81	$123.17	$145.82
4	95.37	177.27	205.22
5	126.59	234.03	263.68
6	155.86	285.04	317.48
7	190.04	341.11	374.10
8	223.70	396.78	429.73
9	256.82	452.05	484.39
10	289.37	506.91	538.08
15	420.16	753.46	777.90
19	514.95	950.14	956.78
20	537.09	Full Paid	Matured

* Premiums per $1,000 at age 35:
Ordinary life $28.11
20-payment life 38.34
20-year endowment 51.47
Values are from one company only.

by policyholders, some companies make the choice automatic in the event that no other selection is made by the policyholder. The advantage of reduced paid-up insurance over the other non-forfeitures options is that it, at least, provides permanent insurance for a definite amount.

11. *Automatic premium loan.*—One of the methods used by some companies to obviate the lapsing of policies is the insertion of the automatic premium loan provision. Under this provision the premium is automatically paid by using the cash surrender value as collateral. The policy is thus kept in force until the sum of the automatic loan and the interest

on the loan withdrawn to pay the premium equals the cash surrender value stated in the policy. The important advantage that this provision offers the policyholder is that the policy is kept in full force until the amount available for the automatic loan is exhausted, so that if the insured desires to resume payment of premiums before the policy is finally lapsed, he may do so without submitting further proof of his insurability. It avoids reinstatement of the policy, which would require evidence of the good health of the insured at the time of reinstatement.

12. *Optional modes of settlement.*—Reference has been made to the fact that the insured, if he desires, may provide that the insurance company shall pay the amount of insurance in the form of an income to the beneficiary. The policy provides for the different methods whereby the income can be paid, that is, various optional modes of settlement that are offered for selection to the insured. These modes are:

(a) The beneficiary receives the interest on the principal sum for a stipulated number of years, after which time the principal sum is paid.
(b) The beneficiary receives payments in equal amounts for a specified number of years.
(c) The beneficiary receives payments in equal amounts for a specified number of years, and also thereafter, if the beneficiary should survive the period.
(d) The beneficiary receives a fixed income until the amount of the insurance has been paid to the beneficiary, together with interest on the unpaid balance.

13. *Dividends.*—If the insured has purchased a policy issued by a mutual or participating company, he has an interest in the company's surplus. A portion of this surplus is returned to him and the balance is kept to meet future contingencies. The share so returned is called a dividend, but this is a misnomer, since the policyholder is not a stockholder. He actually receives a refund or share of the surplus, proportionate to his annual contribution. This so-called dividend usually is paid after the second year. The right to a share in the company's surplus does not extend to policyholders in non-participating stock companies, in which the surplus is exclusively the property of the stockholders, unless the policy provides, as in some cases, for participation.

The policy issued by a participating company must contain a provision in reference to dividends. The policyholder is entitled to the various dividend options under the policy. He is entitled at his option to the following:

(a) To receive the dividend in cash, or use it toward payment of the premium
(b) To purchase paid-up additional insurance, thus increasing the face amount of the insurance policy
(c) To intrust the dividend to the company and receive interest on the money

In addition to the above options, the insured can use his dividends to make his policy fully paid, or to convert it to a matured endowment policy.

14. *Assignment.*—Life insurance policies may be assigned freely, subject only to the restrictive policy provisions, or public policy. The policy generally contains a clause which provides that the company does not guarantee the validity of the assignment. In addition, the policy may contain a statement that the company is not responsible under the assignment unless the original assignment, or a certified copy, has been filed with the company.

An assignment of an insurance policy may be voluntary, conditional, or absolute. A voluntary assignment is one that is made without a valuable consideration. Such an assignment is effective only if made in good faith, not in fraud of creditors, and not as an evasion of the requirements of the insurable interest. A conditional assignment is the usual form of commercial security and is the form generally used to secure a debt. Evidence that the debt is paid will be enough to cancel a conditional assignment, even though the assignment was absolute in form. An absolute assignment is equivalent to the sale of the policy. The rights of the insured in the policy can be reëstablished only upon a subsequent absolute reassignment. All the circumstances of the case are taken into consideration by the courts when deciding upon the effect of an assignment made for the purpose of securing an indebtedness. In addition, where the beneficiary has been named with no right of change reserved by the insured, consent of the beneficiary is essential before assignment can be made.

15. *Reinstatement.*—By the terms of the contract, the policyholder has the right to reinstate a lapsed policy within a reasonable time after lapse. This right is denied if the policyholder does not satisfy the insurance company that he is in good health. It is also denied if the insured has previously received the cash value of the policy. The terms of reinstatement require the insured to make payment of past-due premiums, with interest, as well as payment in cash of any indebtedness that existed at the time of lapse, with interest, or reinstatement of such indebtedness increased by past-due interest. The latter option applies only if the cash value of the policy, after reinstatement, is sufficient for that purpose.

16. *Beneficiary.*—The beneficiary is the person named in the policy to receive the proceeds when the contract matures. All such persons must have an insurable interest, as mentioned previously, except where the insured obtains a policy on his own life, to protect some specific interest, and designates some person or persons, other than himself or his estate, as beneficiary or beneficiaries. Legal developments concerning the designation of the beneficiary hinge largely upon the question as to whether or not the beneficiary has been named subject to revocation by the insured.

When the right of revocation is not reserved by the insured, the beneficiary obtains what is known legally as a vested interest in the policy. The beneficiary thereby becomes possessed of an interest that is not

dependent upon the insured for its continuance, and the policy is not the absolute property of the latter. The insured cannot then assign the policy, borrow money, or obtain the surrender value, or insert another beneficiary, without the written consent of the existing beneficiary. Naming an irrevocable beneficiary binds the insured and is, therefore, a disadvantage although he may cease to pay premiums and thus defeat the beneficiary's interest. If a wife is named beneficiary, for example, without the reserved right to change the beneficiary, the insured who may later divorce or separate from her, can affect her right in the policy only by ceasing to pay premiums. Even though he had previously accrued a large sum in the form of premiums already paid, he will be powerless to derive any benefits from the cash surrender value of the policy, without the beneficiary's consent.

The more convenient way of designating a beneficiary, as far as the insured is concerned, is for him to reserve the right of change. He is enabled thereby to retain complete control over his policy and its proceeds. If at some later date he decides to select another beneficiary, nothing can prevent his doing so, since the only right that the existing beneficiary had in the policy was an expectant one. If the insured desires to employ his policy as security for a debt, he will not be confronted with the difficulty of obtaining the beneficiary's consent for the purpose, but can change the beneficiary at will to serve his immediate need.

17. *Method of naming beneficiary.*—The ramifications accompanying the designation of some person, persons, fund, or organization as the beneficiary are many. The groups into which they can be classified are as follows:

(a) *Estate of the insured.* If the insured makes his policy payable to his estate, or to his executors, administrators, or assigns, he should be certain that his ultimate wishes will be carried out. He should realize that he leaves the proceeds of his policy subject to the claims of his creditors, and that his dependents and heirs must suffer a delay until the whole estate has been settled.

(b) *Wife of the insured.* When the insured specifies his wife by name as beneficiary, subsequent divorce or remarriage will not affect her rights to the insurance proceeds, unless the insured has reserved the right to change the beneficiary and has made the change. If the policy is payable to the wife of the insured, provision should be made for proper financial guidance of her disposition of the insurance proceeds. This safeguard will protect her against her own inexperience.

(c) *Creditors.* If a creditor is named as beneficiary, he should be named as trustee to receive the benefits of the policy in order to pay any existing indebtedness to himself, and to pay the remainder to designated heirs of the insured, or to his estate.

(d) *Partnership.* If a partner is named as beneficiary, it may happen that the purpose for which the insurance was purchased, that is, to buy the deceased partner's interest in the firm, will not be accomplished. Since the surviving partner

will receive the insurance funds, he may mingle them with the funds of the business. Should the business suffer reverses, the heirs of the deceased partner then would not be the recipients of the money that he had planned to leave to them. It is advisable, therefore, to appoint a trustee as the beneficiary. The duty of the trustee should be immediately to value the business and pay to the heirs of the deceased partner, from the insurance funds, an amount equal to the interest of the deceased partner in the business, so that both the surviving partner and the heirs would be protected.

(e) *Business.* If an individual business man, a partnership, or a corporation has purchased life insurance on the life of an individual, the business should be made the irrevocable beneficiary. Legally, the insured could not change the beneficiary, even if the designation of the beneficiary was made revocable, unless, perhaps, a third person's rights might be affected. By designating the business as an irrevocable beneficiary, this question can be avoided.

18. *Canadian law regarding beneficiaries.*—In Canada each province has its own insurance law. There is no uniform legislation, but the statutes of all provinces other than Quebec are similar in principle and have made similar provisions with regard to beneficiaries. The following remarks are based on the Ontario Insurance Act.

Three classes of beneficiaries are recognized:

(a) Preferred
(b) Ordinary
(c) For value

Preferred beneficiaries are the husband, wife, children, grandchildren, father and mother of the person whose life is insured. Where the insured designates as beneficiary a member of the class of preferred beneficiaries, a trust is created in favor of the designated beneficiary and, so long as any of the class of preferred beneficiaries remains, the insurance money shall not be subject to the control of the insured or of his creditors, or form any part of his estate.

The insured may subsequently limit, extend, or transfer the benefit of the contract to any one or more of the class of preferred beneficiaries, but he may not go outside the class even if he purported to retain the right to revoke the interest of a preferred beneficiary. In the case of the death before maturity of the contract of any preferred beneficiary, his share may be dealt with by the insured to the same extent as if he had not been a preferred beneficiary. Subject to this provision, the share of a preferred beneficiary, dying before the maturity of the contract, is payable according to specific rules set out in the Insurance Act.

Where the husband or wife is divorced, all interest of the beneficiary passes to the insured or his estate.

It should be noted that when a preferred beneficiary is designated, the insured can borrow from the company only such sums as are necessary to keep the policy in force and, that if he wishes to surrender the policy, he may do so without the consent of the

preferred beneficiary only if he accepts a paid-up policy in favor of the preferred beneficiary.

19. *Ordinary beneficiaries.*—All beneficiaries, who are not preferred beneficiaries, or beneficiaries for value, are ordinary beneficiaries. Under the Ontario Insurance Act, the insured has the right to revoke the appointment of any ordinary beneficiary and to make a new appointment either to himself or to his estate, or anyone else. No consent is needed from the named beneficiary. Similarly, no consent is needed if the insured wishes to borrow from the insurer or to surrender his policy.

20. *Beneficiaries for value.*—Under beneficiaries for value are classed those beneficiaries who have given valuable consideration (other than marriage) and who are expressly stated to be, or described as, beneficiaries for value in the policy, or in the endorsement thereon, or in a subsequent declaration signed by the insured. A beneficiary for value acquires a vested interest in the policy and his rights cannot be defeated by the insured in any way.

In the Province of Quebec, the term "preferred beneficiary" is not used, but a limited preferred class is created by the Husbands and Parents Life Insurance Act. A husband may insure for the benefit of his wife or children, or a father and mother may insure for the benefit of the children. These beneficiaries may be named in the policy or by declaration attached to the policy. A duplicate must be filed with the company and a note of the filing endorsed

by the company on the policy or on the declaration. If no apportionment is made among the beneficiaries, special rules apply. The insured may change the beneficiaries or reapportion the benefits, but, as in the other provinces of Canada, only within the preferred class. Any such change or reapportionment may be made by will or by declaration attached to the policy and the duplicate declaration must be filed and noted by the company as mentioned in the discussion above.

The policy reverts to the insured, when the child for whose benefit it was effected dies without issue before the person insured, or when the wife for whose benefit it exists predeceases the husband with or without issue; and, similarly, with any share in an apportionment where the policy is in favor of both wife and child.

Policies effected under this act are exempt from seizure for debts due either by the insured or by the persons benefited. The insurance money is likewise free from seizure, but only while in the hands of the company.

The rights of ordinary beneficiaries are governed by the Civil Code. If a policy is made payable to a third person and the third person assents to it, the insured cannot revoke it. It accordingly becomes an important question of fact as to whether or not the beneficiary has accepted the benefit. The insurance company will, in general, require the consent of the beneficiary to any change of beneficiary unless there

is a provision in the policy reserving the right to change the beneficiary.

21. *Creditors' rights.*—The question of the rights of creditors to the proceeds of life insurance policies is perplexing. In the United States recent decisions reveal a tendency to avoid definitely committing the courts on the subject, preferring to leave such matters for future adjudication, when the legal problems involved will be more clearly defined and public policy better established. In this connection, judicial decisions can be found on both sides of the many questions involving the rights of creditors. It may be said, however, that naming the beneficiary without right of change protects the policy from the claims of creditors. There is also a provision in the Federal Bankruptcy Act stating that creditors cannot have the full proceeds of the policy upon the death of the insured, even where the beneficiary may be changed, but only the surrender value of the policy. If the effect of the state statutes involving the rights of creditors is not in point, the prevailing rule is largely controlled by an important federal decision that holds that the cash surrender value of an insurance policy at the time of adjudication of the policyholder as a bankrupt passes to the creditors, if the bankrupt has retained the power to change the beneficiary. There is a tendency in state legislation, however, to enact laws exempting life insurance policies from passing to creditors, regardless of the fact that the beneficiary may have been revocable.

In Canada, when preferred beneficiaries have been named, the insurance moneys are free from the control of creditors. When ordinary beneficiaries are named, as a general rule such beneficiaries are entitled to preference over creditors unless the assignment is attacked as a fraud on creditors and it is proved that the insured was insolvent at the time he made the assignment or declaration in favor of the ordinary beneficiary. But in some provinces, creditors are limited to the right to recover premiums and interest when premiums are paid by the assured with intent to defraud creditors.

22. *Disability.*—There is always present a possibility that an insured may suffer a serious accident or illness. If his earning power were seriously affected through such an occurrence, he would find it very difficult to continue to pay premiums. He might be compelled, therefore, to lapse his policies at a time when his dependents were in great need of protection. To avoid such a situation, many life insurance companies attach a disability clause to the life insurance policy. This clause usually provides for waiver of future premiums, if the insured has been permanently and totally disabled before reaching a certain age, usually 60 years. In addition, the disability clause may provide for the payment of a monthly income, usually $10 per month for each $1,000 of insurance in force.

In the past, different disability clauses have been used by the various companies. These clauses have

been presented for interpretation to many courts, because of the uncertainties in the wording of the provisions. Legislation is being enacted to standardize the disability clause. The leading standard clause now provides, in effect, that the insured shall be entitled to the benefits of the disability claim if he has been continuously disabled for a period of four months.

In addition to the disability benefits, some policies provide for the payment of double the amount of the policy if the death of the insured is due to an accident. Accidental death is usually defined under the policy as "Death resulting from bodily injury, effected solely through external, violent, and accidental means, independently and exclusively of all other causes, and within ninety days after such injury."

REVIEW

Discuss the elements of insurable interest.

What is the essential information contained in an application for life insurance?

List the non-forfeiture privileges of life insurance policies.

Outline the methods of paying claims under the optional modes of settlement.

What dividend options are available in a participating policy?

List the various beneficiaries that can be named in an insurance policy.

Explain the operation of the disability clause.

CHAPTER V

GROUP INSURANCE AND ANNUITIES

1. *Nature of group insurance.*—Many employers have assumed some moral responsibility for the social welfare of their employees by providing them with better working conditions, free health examinations and medical service, and various kinds of recreation. The purpose, primarily, is to create better employment conditions, for it has become a familiar economic conclusion that contented and loyal workers contribute to business efficiency, while worried and disgruntled workers retard progress. Although social events are the methods generally used by employers to win the goodwill of their employees, in recent years wider and more substantial measures in this direction have been undertaken by the fostering of group insurance and old-age pensions for workers.

The principles underlying group insurance are essentially the same as those that underlie ordinary life insurance. The group, however, limited generally to employees of a single employer, is the unit of selection, instead of the individual life. The number of employees insured must be not less than fifty.

While various types of policies have been issued under the group plan, extending, in fact, over the

entire field of insurance, the one-year renewable term policy is most widely favored. Under this policy, premium adjustments caused by new entrants and withdrawals are easily made and there are no equities that remain to be calculated at the end of each term. This form of coverage is simple in operation and relatively inexpensive in cost. It further appears particularly adapted to the insurance needs of employees who, at best, form a fluctuating class in relation to the employer. One of the principal motives for introducing group insurance is to limit these fluctuations and so reduce the cost of labor turnover by furnishing employees with a continual inducement to remain in their jobs.

2. *Medical examinations.*—Under the group plan, one policy is issued to the employer and a certificate is issued to each employee who is entitled to benefits under the policy. Individual medical examinations usually are not required, since it is the group and not the individual that is selected. Furthermore, a plan of group insurance that would involve a high expense for medical examinations is inadvisable. One of the outstanding benefits of the group plan is its relative low cost, and this advantage can be attained only by keeping the expenses as low as possible. In addition to reducing the costs of group insurance by dispensing with medical examinations, personal solicitation of individual insurance policies and the consequent high cost of commissions are eliminated also in large measure.

Since group insurance covers a number of employees under one blanket policy issued to their employer, who in turn distributes certificates of insurance among his workers, the insurance company is not interested primarily in ascertaining the insurability of each employee. The attention of the insurer is directed to employment conditions, such as fire protection, sanitary conveniences, the occupations of the various employees, occupational disease hazards, and the health situation in the community. This survey includes the entire plant and its surroundings and is an important factor in determining the premium rate to be charged for the policy selected by the employer with whom the insurance company contracts and to whom it looks for payment of the premium.

3. *Plans of group insurance.*—There are two general plans of group insurance available. Under one plan the employer pays the whole premium. Under the second plan the employer pays a portion of the premium and his employees pay the balance. These plans are known, respectively, as the non-contributory and the contributory plans. The employer may combine both plans in the following manner. He may pay the entire premium for a small amount of insurance, for example, a $1,000 policy for each employee. Then, should any employee desire to be insured for an additional sum, the employee must be responsible for the payment of the additional insurance.

The features that should be considered under the non-contributory plan, are as follows:

(a) All employees must be included so that the element of adverse selection is entirely eliminated.
(b) Details of operation are simplified and the employer retains entire control.
(c) New employees are automatically insured, usually, however, after having been employed a specified period, such as, for example, three months, or a year.

Under the contributory plan, the following factors should be considered:

(a) Through the medium of their employer, employees can obtain for themselves, as a group, substantial amounts of insurance at the minimum cost.
(b) Before the group insurance coverage can be obtained, it is necessary to secure the applications of a large proportion of the employees.
(c) An employee who does not elect to take insurance under the group until after the group insurance has been obtained for other employees may be required to furnish evidence of his insurability.
(d) Where the employer does not pay the entire premium, there is less likelihood that he will discontinue the policy.
(e) Employees may fail properly to appreciate group insurance unless they bear part of its burden.

Under both of these plans, the one-year renewable term policy is most often selected. The insurance extends for a period of one year and may be renewed at the end of that time for another term of one year. If, during the existence of the policy, an employee dies from any cause whatsoever, at any time or place,

while in the service of the employer, the amount of insurance then in force will be paid to the beneficiary designated by the employee. Where the employee has not named a beneficiary, the insurance usually is paid to members of his family, or others dependent upon his earnings for support, according to the judgment of the employer, who determines the recipient of the insurance proceeds.

4. *Disability clause.*—Many group policies provide that, in the event of total and permanent disability of any employee before reaching the age of sixty years, provided that the employee at the time of his disablement is still in the employ of the company and the group policy is in force, the amount of insurance on the face of the policy is payable in regular installments to the employee.

5. *Amount of group life insurance.*—The amount of insurance to be obtained for each employee under the group plan creates a problem that each employer must solve for himself. For this reason, the face values of such policies vary considerably. Essentially, the amount of insurance on any employee must be based upon some plan that precludes individual selection, and must be limited by fixed rules. Four general methods that are used for determining the amount of insurance on group policies are:

(a) The same amount is granted to each employee, irrespective of the amount of salary or the length of service.
(b) The amount is based on the employee's salary.

(c) The amount depends upon the employee's position.
(d) The amount depends upon the length of service of the employee, irrespective of salary.

The first method does not take into consideration the length of service of an employee and, therefore, neglects an important feature of the group insurance plan. It has as its one advantage, however, simplicity of operation.

The second method appears to be advisable under the contributory plan of group insurance, where the employee contributes a part of the cost. The amount of insurance for each employee is frequently one year's salary or wages. The amount of insurance may be determined also in some other way.

Under the third method, the amount of insurance is determined by the employee's position. For example, executives may be given $5,000 insurance, department heads $2,000, and all other employees $1,000.

The fourth method determines the amount of insurance according to the employee's length of service. This method is preferable in the non-contributory plan of group insurance.

Under some policies there is a waiting period provision of from three months to a year before the insurance becomes effective as to any particular employee. This period is designed to eliminate floaters and limit the benefits of the group plan to the steady worker. The differing needs of high-salaried and low-salaried employees, however, are not provided

for, unless different schedules are used applying to different classes of employees.

6. *Conversion privilege.*—While the principle of group insurance is that such insurance shall be effective only while the employee remains in the service of the particular employer who obtained the group policy, the group policies carry conversion privileges. An employee, who leaves his employer for any reason and thereby terminates his rights under the group insurance, may obtain permanent insurance under the conversion privilege for an amount equal to the amount of his protection under the group insurance policy. The employee may obtain such permanent insurance without further evidence of insurability, if he makes application to the insurance company within a stipulated period after leaving his employment. The premium charge is based upon the employee's then attained age, and the form and amount of the policy selected by him for permanent protection.

7. *Benefits of group plan.*—Group insurance is not intended as a substitute for individual insurance, but rather as a supplement to it. It does not in any way replace or affect any money that might become due or payable to the employee under the workmen's compensation act.

It has been ascertained that a large class of industrial workers carry no insurance protection whatever. The death of the breadwinner in an industrial worker's home, therefore, inflicts a great

hardship upon his dependents. There is frequently no savings fund to be used as a buffer against the economic needs of the family. The result is a state of absolute want, which the other employees, the employer, and the community should bear some part in alleviating. Employees who labor under the oppressing thought of what their death would mean to their helpless dependents, are naturally discontented, worried, and unhappy in their employment. When these employees are relieved, to a certain extent, of this worry, by means of group insurance protection, favorable results should be reflected in the form of improved production for the employer.

In general, the benefits to the employer, who obtains group insurance, are as follows:

(a) There is an increased efficiency and loyalty of the entire working force.
(b) A coöperative spirit is instilled throughout the group and continued service is rewarded in a substantial way.
(c) Each employee is enabled to devote steadier and more concentrated attention to his duties, once family economic worries are somewhat eliminated from his mind.
(d) It assists materially in reducing labor friction by creating a better feeling between employer and employees.
(e) It reduces labor turnover and attracts efficient workers.

8. *Old-age pensions.*—While the object of group insurance is to offer life insurance to employees for the protection of their dependents, old-age pension

funds have as their aim the protection of the employees themselves against economic need when they become too old or infirm to earn a livelihood. Aside from the fact that government employees usually are provided with such pensions, and that a limited number of business organizations operate old-age pension funds for their employees, the practice of granting old-age pensions has not developed to any extent in the United States.

The business world has not made great strides in the granting of old-age pensions. But society is showing a greater concern for its aged, and legislation is being enacted giving persons at an advanced age pension benefits through state grants.

There are many reasons that should appeal to modern industrial leaders for supplementing the social welfare functions of group insurance with those effected by old-age pensions. In many respects, the motives and results behind both these movements are alike. This similarity will be apparent from consideration of the arguments advanced in support of the old-age pension idea. The reasons for its support most frequently cited, are:

(a) Recognition and reward for long service
(b) Encouragement of loyal service and improvement of general morale
(c) Restraint in times of unrest; pension plans may provide that the pension will not be paid if there is a break in the continuity of service, and thus they exercise a restraining influence upon employees

(d) Reduction in labor turnover
(e) Retirement of the superannuated and consequent increased efficiency of the active force

9. *Types of pension now used.*—Various pension plans deal with superannuated employees. The variations arise because of the differences in the needs of employees and the employer's interest in avoiding unnecessary costs. The plans in operation are as follows:

(a) Gradual retirement—transfer and demotion
(b) Informal pension and gratuities
(c) Formal discretionary plan
(d) Limited contractual plan
(e) Contributory pension plan
(f) Single-premium deferred annuity
(g) Modified deferred annuity plan
(h) Employees' management plan

10. *Gradual retirement plan, and informal pension plan.*—Under the plan of gradual retirement; with transfer and demotion, older employees are kept on the payroll, but they are shifted to other, lighter tasks and their wages may be somewhat reduced according to their declining productivity and efficiency. The advantage of this plan is that it gives the management opportunity to exercise judgment to meet the needs of each individual case. It has, however, one serious disadvantage. As the number of aged employees increases, the efficiency of the plant is decreased and the operating cost of the plant begins to mount.

The informal pension and gratuities plan is prob-

ably an outgrowth of the transfer and demotion idea. Under it, while there is recognition of the principle that old employees should be pensioned, each case is handled individually on its own merits. The employer has the power to determine the date of retirement, the amount and duration of the pension, and all other factors concerning payment. The pension when granted is regarded as a voluntary gratuity that has been made to prevent hardship for the employee who has a satisfactory record of service. This plan has the advantage of flexibility, since adjustment can be made to meet each case. In addition, the employee has no legal claim upon the employer. The receipt of the pension must depend upon the prosperity of the business. The plan can be used with advantage only in organizations with a limited number of employees, where it would be possible for the employer to acquaint himself with the needs of each. One disadvantage is that the employer can arbitrarily discriminate between employees, a practice that would undermine their goodwill and morale.

11. *Formal discretionary plan, and limited contractual plan.*—Another method of administering pension provisions is according to the formal discretionary plan. Where a business is large and the relationship between employer and employees is impersonal, regulations are necessary to guide the employer in granting pensions. However, the pension remains a voluntary gesture. Standards of retirement payments, and amounts of pension benefits, are

determined in advance, but the employee remains uncertain whether or not he will receive a pension, since the employer is not bound legally to continue the pension and it is in his power to change any condition of the plan.

The limited contractual plan is very similar to the formal discretionary plan. The actual difference is that in the formal discretionary plan there is no legal obligation for the payment of pensions by the employer, while under the limited contractual plan the employer surrenders the right to alter at will, or discontinue, the pension allowance once a pension has been granted. The plan is, in effect, recognition of the theory of a deferred wage for the older employee and is, therefore, in the nature of a contract between the employer and those who have been granted pensions. The employer, however, can terminate the plan at any time for those who have not as yet been pensioned.

12. *The contributory pension plan, and the single premium deferred annuity plan.*—Under the contributory pension plan, the employer and employee contribute the funds to meet the cost of the pension, both making regular and periodic advances. In many instances, the employee's contribution is voluntary rather than compulsory. If the employee has contributed, he usually has the right to the funds he contributed, which he may claim upon leaving his employment. Where the plan is not compulsory for all employees, many who need it most will fail to

contribute, and, therefore, the success of the plan will be limited to the foresighted employee.

Under the single premium deferred annuity type of pension plan, payment is made to an insurance company each year for the benefit of the employee, so that when he retires, at a definite age, for the rest of his life he is entitled to a certain sum annually from the insurance company. In return for each annual payment to the insurance company, an independent and separate contract is issued to the employee, who has the privilege of going wherever he desires without forfeiting the pension rights gained during his employment. The sums of the various payments added to all accumulations of interest are used by the insurance company to provide the pensions. This plan is a clear recognition that a pension is a deferred wage. The employer may bear the entire burden, or the employee may contribute. The employer knows that there is a definite cost each year, and the employee knows that the plan is definite and has no uncertainties.

13. *Modified deferred annuity plan, and the employees' management plan.*—The modified deferred annuity plan bears a certain resemblance to the single premium deferred annuity plan. If the employee desires, he can contribute, thus increasing his pension allowance. Unlike the single premium deferred annuity plan, however, the modified deferred annuity plan is based on length of service, and, to be entitled to a pension, the employee must still be in the service

when he is retired. If the employee leaves the firm before the retirement age, he receives only the amount of his own contribution, frequently without interest.

In many industrial companies, workers, recognizing their inability to provide for old age as individuals, have founded their own organizations for mutual aid in providing old-age pensions. Because the contributions come from the employees, the fund is not affected by any act of the employer. The plan is limited in practice, since the employees cannot set aside sufficient funds to take care of old age without reducing the standard of living below the danger line. Furthermore, the very people who should contribute to a pension fund rarely do because they are usually without the means. In case of any serious crisis, the plan would be fatally handicapped also by lack of substantial support.

14. *Amount of pension allowance.*—The important factors determining the pension allowance are:

(a) Length of service
(b) Salary rate
(c) Service rate
(d) Flat pension

There is often a close relationship between the salary or wage of the employee and his length of service. The plans frequently provide that the pension should be a certain percentage of the final yearly salary, or the average wage during the five or ten years preceding the retirement, multiplied by the number of years that the employee has been in the

company's employ. In some instances, the pension is based on consecutive years of highest earnings.

15. *The salary rate, and the service rate, methods.* —Pensions based upon salary recognize the standard of living by granting an arbitrary pension allowance in proportion to earnings, or a definite percentage of yearly salary. The pension is sometimes computed either by a straight grant of a percentage of the average annual pay, or by a grant of percentage of the last year's salary in the first year of retirement and a decreased percentage of the salary thereafter.

Under the service rate method, since the employer's purpose is primarily to reward the employee for length of service, there is granted a progressive increase in the percentage of pension allowance in accordance with the years of service.

16. *The flat pension method, and miscellaneous methods.*—In most cases the length of service and salary are taken into consideration. A number of plans, however, disregard both features and arbitrarily fix a flat sum sufficient to meet the needs of the individual.

Many concerns have their own way of calculating pension amounts. While some leave the pension allowance to the board of directors, others make the allowance according to the wages, the amount paid by the employee, and the period of contribution. Some firms make the pension allowance depend upon membership in the plant mutual benefit associations.

17. *Factors that determine cost.*—The factors that determine the cost of pensions are enumerated in (a), (b), (c), and (d):

(a) Number eligible
(b) Labor turnover
(c) Age of active force
(d) Growth of working force

The cost will depend directly upon whether the number of employees will be large or small at the retirement age. Obviously, if the retirement age is 60, the number eligible will be smaller than at the age of 55, but greater than at the age of 65. The number eligible is determined by the retirement age and service requirements.

If the labor turnover is high, the number of pensions granted will be small.

The factor involving the age of the active workers depends on the average age of the members of the working force when the plan is started. If the average age is high at the time of the institution of the plan, the costs of the plan will be heavy during the time of its existence. Furthermore, the number eligible will depend upon the age of the concern. After the concern has been in existence for a long time, there will be many employees on the point of becoming eligible for pensions.

The growth of the working force has a decided influence upon the number of pensions for the succeeding years.

18. *Methods used to finance pension plans.*—The

following methods have been used to finance pension plans:

(a) Occasional or periodic contributions
(b) Endowment funds
(c) Initial and annual appropriations
(d) Actuarial calculations

Under the method of occasional or periodic contributions, the charges for pension funds are met, as they arise, out of the company's funds from year to year. When the pensioners are increased in number, the cost of appropriations must be increased, or the allowance made for the benefits must be reduced. Occasional contributions are therefore hazardous, if used to operate a pension fund plan. Trade depressions and other conditions may cause the insolvency and failure of the scheme.

In the endowment fund method, a capital sum is either set aside in the business, or, preferably, is invested in some dependable securities of which the income is used to pay pensions. The disadvantage of such a method is that, unless the fund is very large, the income will be insufficient to meet the claims upon it. Therefore, the company may have to resort to supplementary funds for general revenues or to restrict the number or amount of the pensions granted.

By the initial fund and annual appropriations method, the initial fund is supplemented by annual appropriations made by order of the board of directors. The initial funds are usually small and the

revenues furnished are inadequate. Furthermore, the increasing appropriations required by the pension fund are heavy financial burdens on the company.

The most satisfactory method, and one that is coming into general use, is the gradual creation of an independent reserve fund calculated on an actuarial basis. Contributions are made annually to take care of each individual employee from the time he enters the service until he is pensioned. The fund is so calculated that, at the retirement age of any employee, it is able to yield the amount of the required pension for the rest of the employee's life, or the period allowed by the plan.

The factors or possibilities that influence future costs are computed with approximate exactness based upon statistical experience. The burden of the cost of such a plan is distributed over a period of years during which the interest on the reserves accumulates. This increases the value of the fund. It is preferable for the concern to create its pension plan on an actuarial basis immediately, rather than wait until liabilities have accrued and are large and troublesome.

REVIEW

What is the principle of group insurance?

What are the various plans of group insurance?

How is the amount of insurance for each employee determined under a group insurance policy?

What are the benefits of group insurance?

State the various types of pension plans used.

In what ways is the amount of pension allowance determined?

CHAPTER VI

ACCIDENT AND HEALTH RISK

1. *Personal insurance.*—Another phase of personal insurance closely allied to life insurance is that against the effects of accidents and sickness.

The number of accidents occurring annually, and the amount of ill health that continually exists among the population, constitute grave problems because of their serious effects upon the well-being of individuals and because of the losses that they entail to the community as a whole. Several types of insurance have been established to distribute the losses falling upon individuals as a result of the accident and health risk.

Life insurance, of course, affords the same protection against the effects of death by accident, as by other causes. Death benefits are not, then, the distinctive features of accident insurance, but rather the provisions relating to disabling bodily injuries. In like manner, so-called "health" policies protect the holder against the economic losses due to sickness.

Before discussing the forms that insurance takes in these fields, it may be well to gain some idea of the magnitude of the risks that are involved and the efforts that have been made to control them.

2. *Magnitude of the accident risk.*—Until recent years, little information was available as to the number of accidents occurring annually or the losses that were attributable to them. Even at the present time accurate measurement is still not attainable.

It is estimated that there were about 100,000 deaths due to accidents in the United States in 1929, an increase of 5.2 per cent over the 1928 record. Compared with 1913, there was an increase of 21.4 per cent in the number of accidental deaths in 1929.

There were about 20,000 more fatal accidents in the United States in 1929 than in 1911. Deaths due to automobile accidents in 1929, exclusive of collisions with railroad trains and street cars, were approximately 28,000. Compared with 2,043 in 1911, this is an increase of about 26,000.

No exact ratio between fatal and non-fatal accidents has been worked out, but it is estimated by insurers that there are from 125 to 140 cases of disabling injury to every accidental death. Certainly there can be little doubt that the total of accidents in all degrees of severity runs into many hundreds of thousands.

As the definition of what constitutes an "industrial" accident differs from state to state, there are no means of knowing how many persons were exposed to such industrial accidents.

Granting that any statements as to the whole number of accidents occurring in the United States must be largely a matter of estimate, the few facts cited

are impressive. They indicate clearly that the accident hazard is a considerable one. One person in every nine meets with an accidental injury each year. This ratio holds fairly constant. If to conjectures regarding the number of persons affected in the course of a year by accidents we should add further conjectures as to the losses they sustained through diminution of income and extraordinary expense, there can be little doubt that the figure would run into many millions of dollars.

Information regarding non-industrial accidents is even more incomplete and uncertain. It may, however, be noted that authorities on insurance consider that non-industrial accidents are even more numerous than those directly connected with industrial pursuits.

3. *The ill health risk.*—The distinguished English statistician, Dr. William Farr, computed that for every death which occurred in the course of a year there were two persons constantly sick during the year. That would mean that at any given time some three million persons would be sick in the United States, or nearly three per cent of the entire population. It seems probable that this estimate is too high for American conditions.

Such figures support the conclusion that an extensive, though somewhat indefinite, loss occurs to individuals and to society as a whole as the result of sickness. The conclusion is still further fortified by the evidence of the physical examinations made

under the army draft law during the World War. These examinations disclosed the portentous fact that, among the young men of the nation, little more than one-half had the physical qualifications for military duty. Unfitness for army service may be compatible with a high degree of industrial efficiency. Yet, it must be clear that the productive capacity of the nation would be higher with better physical standards. To the extent that sickness rather than congenital defects has contributed to low-grade physical conditions, illness reveals itself as the cause of huge economic losses in efficiency as well as in income.

4. *Accident prevention.*—Both accidents and illness are in some measure preventable, and against their ill effects the aid of insurance may be invoked. It is not long ago that the public attitude toward accidents was expressed in the notion that such occurrences were inevitably associated with our modern commercial and industrial development, and that we could not expect economic productivity to continue on its modern plane without a continuance of a high rate of accident frequency. This self-satisfied and fatalistic attitude was finally shaken by comparative figures of accident frequency for various states, and for different industries within the United States, that demonstrated safety measures to be practical and to be instrumental in saving far more than they cost.

Authorities have pointed to the wide divergence

in the mortality rate from accidents in different states as evidence of a pressing need and opportunity for preventive work.

5. *Accident prevention methods.*—Modern methods of reducing and controlling the accident risk have been developed in the United States almost entirely since 1900 and, for the greater part, since 1910. Preventive methods were organized in a few large industries of the United States before 1910, and have since received a powerful impetus through the passage of workmen's compensation laws which impose heavy burdens upon industries that show a high accident rate.

Mechanical devices have been invented to safeguard the workers from dangerous machinery. Gears and belts have been guarded, railings have been placed around floor openings, and automatic stopping devices have been placed upon machines, elevators, and other operating mechanisms.

Important as are such mechanical safeguards, safety experts have laid greater emphasis on the organization of the employees for safety work and their education in methods of prevention. Some of the largest industrial concerns have developed safety organizations headed by general safety committees composed of men who have specialized in such work, with local committees in the various plants made up of the employees themselves. In general, the plan has been to interest the workers in accident prevention, to develop in them resourcefulness in thinking

out methods of insuring safety and to develop means whereby those in immediate contact with danger spots in the industry, or establishment, may furnish to the general safety organization suggestions as to means of reducing the accident hazard.

6. *Factors in preventive work.*—Among the agencies interested in accident prevention work governmental authorities hold an important place. The departments of the federal government, being without jurisdiction over most of the accidents occurring within state borders, have devoted their efforts largely to educational propaganda and the collection and distribution of information. Many of the state governments in recent years have established industrial accident boards, and have assigned to them, among other duties, that of maintaining an inspection service for industrial, commercial, and manufacturing establishments. Because it is poorly manned and hampered by lack of funds, the inspection service in many states is inadequate. Yet the beneficial results of inspection work in reducing accidents have been demonstrated over and over again.

An important place must be given to the agencies that have established the standards upon which all accident prevention work must be based. The insurance companies have been very active in this field. Many of the large casualty companies have established engineering departments with large staffs of experienced engineers and inspectors whose business it is to study the most approved methods of preven-

tion of accidents. Invaluable advice with reference to preventive methods may be obtained from this source.

7. *Non-industrial accidents.*—Such records of non-industrial accidents as are in existence point to the automobile and other traffic agencies as the most prolific source of such accidents. The increasing stringency of legal requirements for operating automobiles, the multiplication of traffic ordinances, and the appearance of the traffic officers on streets and highways are safety measures that have checked to a certain extent the rapid increase of traffic accidents. But much remains to be done in the education of the motoring public and of the pedestrian.

A large proportion of non-occupational accidents come under the classifications of "at home" and "sports and recreations." In insurance terms, "exposure to accident has multiplied tremendously in recent years. Care in the avoidance of accidents apparently has not increased in like degree.

8. *Rehabilitation.*—Intimately associated with the effort to prevent accidents are the endeavors which reëstablish the worker as soon as possible in his full working capacity. Of late years, this phase of the treatment of accidents has been named "rehabilitation," but long before the expression came into common use there had been established in many industrial concerns hospitals, dispensaries, and first-aid stations that had this end in view.

The experience of the World War stimulated ef-

forts of this nature. The problem of the wounded and permanently disabled soldiers very early became an important one to the various European belligerents, who took up the problem of the rehabilitation and training of the injured soldier with the idea of returning him at the earliest possible moment to industry. When the United States became a belligerent, the federal government engaged in similar endeavors.

The interest thus aroused in the crippled soldier was readily transferred to the industrial cripple, and the years following the end of the War have seen a considerable development of plans for rehabilitating and training the industrially disabled. A law of Congress appropriates funds to be divided among the states that make plans for the return of the victims of industrial accidents to active industrial life.

9. *Prevention of illness.*—Illness and death are no longer resignedly accepted as acts of God. The progress of medicine and sanitary science has demonstrated that illness is in large measure preventable. Control of the ill health risk is a feature of modern social life equally important with control of the accident risk.

10. *Methods of health conservation.*—The public health movement has made great progress in the United States in the last twenty years. Attention has been confined largely to the control of epidemic diseases and the promulgation and enforcement of general sanitary regulations in our larger cities. The

United States Public Health Service has been an important factor in this work, both as an educational agency and through its control of health conditions that are subject to federal regulation. Governmental health departments exhibit an efficiency that was unknown twenty years ago, and municipal health authorities in some cities have so awakened the public to the need of health regulation that they have been clothed with almost dictatorial authority in in regulating sanitary and health conditions.

Although the public health movement has made extraordinary progress in recent years, further development will bring the movement still closer to the people. Means will make available, for a far larger share of the population, information regarding the prevention and cure of illness and disease and so create on the part of the people a keen desire to rid themselves of habits and customs injurious to health.

11. *Results of health conservation.*—There is abundant evidence that preventive measures directed against particular diseases have been productive of important results. The classic instance is the reduction in the death rate from yellow fever in Havana, in 1900, as a result of the efforts of the medical department of the army. Scarcely less conspicuous were the effects of the medical administration in establishing satisfactory health conditions on the Isthmus of Panama. The measures taken to reduce the death rate from typhoid and tuberculosis are likewise familiar.

For the present, we are concerned primarily with sickness rather than mortality, but it is a fair inference that where mortality has markedly declined sickness has diminished.

12. *Application of the method of insurance to accident and health risks.*—The present chapter has attempted to show the gravity of the problems connected with personal accident and health risks and the extent to which risk control through preventive methods has been utilized as a solution of the problem. Three important developments in the field of insurance have occurred, which embody the distribution by insurance methods of the uncertain and unforeseen losses falling upon individuals because of these risks. These three methods of insurance are:

(a) Personal and group accident and health insurance
(b) Liability insurance, of which employers' liability insurance has to do particularly with accidents occurring in industry
(c) Workmen's compensation, the most recent development and one that attempts to solve the industrial accident problem nationally

Health insurance on a national scale, dealing with illness in a way similar to that in which workmen's compensation deals with industrial accidents, has been under discussion in various states for several years. Such national health insurance systems are now found in most of the civilized countries of Europe and the older plans have existed since the period commencing around 1880.

REVIEW

Give a general idea of the frequency of accidents.

Discuss the ill health risk.

Trace the change in public opinion regarding accidents.

What agencies are interested in accident prevention? Describe the methods they use and the results obtained.

Give some account of the work of rehabilitation.

Discuss health conservation and the results achieved in this field.

CHAPTER VII

PERSONAL ACCIDENT AND HEALTH INSURANCE

1. *Nature and extent of personal accident and health insurance.*—The first insurance in the United States against the risk of personal accident or of ill health was a form of voluntary insurance purchased by those who had sufficient appreciation of these risks to seek the protection of insurance against them. The Travelers Insurance Company, the first personal accident insurance company in the United States, originally issued only railway accident policies, but in 1864 an amendment to its charter permitted it to issue policies covering all forms of accidents. During the first few years of its existence, rates that were based on English experience were found to be inapplicable to American risks and it became necessary to revise completely the classification of risks to conform to American conditions.

Health insurance in the United States before 1897 was characterized by failure. Several companies were organized, but lack of financial backing and of a proper table of premium charges soon discouraged them. In 1898, the Fidelity and Casualty Insurance Company of New York undertook to write health insurance in connection with its accident policy.

Other companies quickly followed. Commercial health insurance, however, is still in an experimental stage. As a means of meeting competition, many accident insurance companies now issue health policies, either as separate contracts or as a part of their accident policies.

Protection against personal accident and ill health risks is furnished by four types of insurance carriers —the stock and the mutual companies, which probably do the major portion of the business, employees' beneficial associations, and miscellaneous organizations.

These associations are organized in some instances to write insurance among restricted classes, for instance, business, commercial, or professional men. There are also miscellaneous funds established by industrial and commercial corporations, by labor unions, and by fraternal organizations for carrying these risks, but no figures are available to indicate the extent of their operations.

The present chapter will deal almost entirely with the more highly developed forms of this insurance by stock and mutual companies organized on a corporate basis.

2. *The contract of insurance and its coverage; term of the contract.*—Accident and health risks are similar to life risks in their influence on the economic status of the individual. The occurrence of an accident or ill health at any time during the productive life of an individual may cut off his income,

either temporarily or permanently, and cause a failure to satisfy his responsibilities to others, and therefore insurance against such risks for the period of exposure would require policies for twenty-five, thirty, or thirty-five years. However, the usual term for which an accident or health policy is issued is one year. Some policies are issued for terms of three to six months, and in limited cases for even a shorter period. The so-called railway ticket policy covers the time occupied in a single railway journey, and industrial policies are issued on a monthly basis.

Because the usual policy is issued for a term of one year, although the need of the insured is for a coverage extending over a maximum of thirty-five years, it is important to know whether this protection can be continued and, if so, how. Most accident and health policies provide for renewal of the contract by mutual agreement. In other words, a renewal may be granted if the company sees no reason for denying it. Furthermore, most contracts give the company the right to cancel the policy at any time upon the return of the unearned premium for the unexpired term of the insurance. Whatever may be the cause of the company's refusal to renew, or desire to cancel, either may come at a time when the policyholder is in greatest need of this protection.

The limited terms for which ordinary accident and health contracts are issued and the right reserved by the company to cancel, or to refuse to renew, are unsatisfactory features of these policies. Some com-

panies have recognized this deficiency of the ordinary contract, and, in recent years, have provided a non-cancellable accident and health policy that is issued only to persons who can pass a rigid medical examination. The premium on a non-cancellable policy is, of course, higher, particularly with reference to health coverage, because the liability to illness increases with age. The non-cancellable contract operates under a higher premium for another reason. Under this form of policy, there is a strong probability that the company will suffer an adverse selection among its insured. The policyholder who is in poor physical condition and readily subject to illness and disease will tend to continue his insurance under the non-cancellable contract. If the same individual held a cancellable contract, or the ordinary one-year term policy, the insurance company would be able to reject him as a poor risk by refusing to renew his policy. Of course, under the non-cancellable form, the company must carry the risk as long as the insured pays his premiums.

3. *Accidents and illness covered by the policy.*— If the accident policy is to furnish complete coverage, it must include all accidents that fall within the classification "unforeseen or unexpected." In addition, it must make careful provision to prevent the use of such insurance as a means of gain by unscrupulous persons.

The insuring clauses of these policies vary greatly in their statements as to accident coverage. The fol-

lowing extracts from actual contracts may be considered as typical:

> Against the effect of bodily injury caused directly, solely, and independently of all other causes by external, violent, and accidental means
>
> Against the loss of life resulting directly and independently of all other causes, from bodily injury effected during the term of this policy solely through accidental means; and against disability, while this policy is in force and resulting from bodily injury effected through accidental means

The main difference between these insuring clauses lies in the inclusion in the first of the terms "external, violent, and accidental means," while the second merely states that bodily injury must occur through accidental means. In the early history of accident insurance, the companies were naturally anxious to word their policies so that they would not be subjected to losses due to moral hazard. At a very early stage in the history of the business, claims were contested by the companies and the question was very soon put up to a court of law to determine what constituted "external, violent, and accidental means." The meaning of the policy is carefully discussed in two cases—The United States Mutual Accident Association *vs.* Barry (131 U. S. 100) and Riley *vs.* Interstate Business Men's Accident Association (152 N. W. 617)—and the question of liability under accident policies was further settled by the United States Supreme Court in the following ruling:

That if a result is such as follows from ordinary means voluntarily employed in not an unusual and unexpected way, it cannot be as a result effected by accidental means, but if in the act which precedes the injury something unforeseen, unexpected, unusual occurs, which produces the injury, then the injury has resulted from accidental means.

The second clause given above furnishes unquestionably a broader coverage, since under it no question can arise as to whether the injury was caused by external or violent means. A tendency to simplify and liberalize the policy wording has followed the growth of knowledge and experience concerning this kind of insurance, and it is to be expected that the tendency will continue in the future.

The following insuring clauses covering the company's liability for sickness likewise show great variations:

Against the effects of sickness as follows . . . if the insured shall be continuously confined within the house, not leaving it at any time, or for any purpose whatsoever, and regularly visited therein at least once in every seven days by a licensed physician and be wholly prevented from transacting any and every kind of business, solely by (here are cited eighty-three different kinds of diseases) not including their complications and consequences, provided that this insurance shall have been in continuous force for thirty days from its date prior to the contraction of the disease

The insured shall, independently of all other causes, be . . . disabled and prevented by bodily disease not herein excepted, from performing any and every kind of duty pertaining to his occupation . . . No payment shall be made for disability resulting from any disease for which

the insured is not treated by a physician, or from disease beginning within fifteen days from noon of the date of this policy

Against disability commencing while this policy is in force and resulting from sickness; such disability . . . to be such as will result in continuous loss of business time

4. *Benefits under accident and health policies.*—In the analysis of risk in Chapter I, accident or sickness occurring to an individual is measured in terms of his economic loss. If uncertainty is to be completely replaced in this instance by certainty, the insurance premium that he pays becomes a certain loss, while all other financial losses that he sustains as a result of accident or illness will be transferred to the insurance fund. Of course, no system of insurance grants this complete coverage, and, in the particular case of accident or sickness insurance, it is not possible to measure the financial loss with any such certainty of refinement as the definition of Chapter I would indicate.

It is sufficient for practical purposes that there be agreement in a broad general way with the requirements of theory. Accordingly, companies issuing accident and health policies are careful to see that no policy is issued promising periodic indemnity in amounts greater than the current income of the insured.

Since there are many companies issuing accident and health policies, it would seem possible for the insured to violate the most liberal interpretation of

the principles of indemnity by seeking contracts from various companies. The policy contract often, though not invariably, makes provision against such a contingency. It sometimes provides that, when, without notice to the company or association, other insurance covers the same loss, the company will be liable only for that portion of the indemnity promised that the said indemnity bears to the total indemnity in all policies covering such loss and that, when the company's liability is thus scaled down, it shall return to the insured that portion of the premium representing liability not assumed. A more liberal form of "other insurance clause" is the following:

> If a like policy or policies, previously issued by the company to the insured, be in force concurrently herewith, making the aggregate indemnity for loss other than that of time on account of disability in excess of $50,000, or the aggregate indemnity for loss of time on account of disability in excess of $250 weekly, the excess insurance of either kind shall be void and all premiums paid for such excess shall be returned to the insured.

In other cases, the policy contract may contain no reference to other insurance. In such cases, the application for insurance, which is usually included in the contract, or made a part of it by reference, will reveal the existence of other policies covering the same risk.

Granted that accident or illness insurance benefits must be based upon the principle of indemnity, it

appears that the benefits should be directly related to the effects of accidents or illness upon the income of the insured. Such contingencies may result in the death of the insured and the complete cessation of his income, or they may render him permanently unable therefore to earn an income. They generally also necessitate extra or unusual expense. An economically adjusted system of benefits seeks to replace losses so incurred from the insurance fund. In a system of insurance well coördinated against all possible personal risks, it might be economically justifiable to exclude a benefit under accident and health policies in case of death and to include this benefit only under life insurance policies.

Despite possible duplication of life and accident coverage, the accident and health policies include payments for accidental death and for disability. The usual plan is to establish a fixed relationship between the so-called principal sum of the policy payable in the event of death and the weekly indemnity, $1,000 principal sum for each $5 weekly indemnity. The policy for which premiums usually are quoted is $5,000 principal sum and $25 weekly indemnity. These policies promise the payment of the principal sum insured upon the occurrence of death from accident, or the payment of the stated sum of periodic indemnity during the continuance of disability occurring as a result of bodily injury. The disability indemnity continues throughout the period of disability, if the economic loss of the insured is to be

covered. A few accident and health insurance companies grant policies giving the coverage stated in the simple terms above given.

5. *Restrictions on benefits.*—Many accident and health policies surround their benefits with restrictions that convert an apparently liberal policy into one of very limited coverage. For example, accident policies sometimes make their benefits available only when injuries are sustained while riding as a passenger on a common carrier, and result from the wrecking of the car or conveyance on which the passenger is riding. Restrictions are common by which the weekly indemnity is paid during disability only in case the injury occurred in certain ways specified in the contract, and it is possible that if statistics were available, they might show that the specified ways were not those in which such injury most commonly occurs.

A practice even more serious to the insured is limitation of the periodic indemnity to a brief time. For instance, some policies limit the weekly benefit to a maximum of 26 weeks. It should be emphasized that the insured loses his income throughout his period of disability, and his need is for a complete coverage of this loss. In early accident and health policies, periodic indemnity was invariably limited to a stated maximum number of payments but, with increasing experience and knowledge of the business, these restrictive provisions are being replaced by policies of the more liberal and more satisfactory type.

6. *Supplementary benefits.*—Accident and health policies today, in addition to the benefit for death and disability indicated above, offer an "attractive" list of additional benefits, attractive because they are included in the contract usually for the sole purpose of attracting the eye of the purchaser, that is, they are used as a means of selling and of meeting competition. Many of the frills or trimmings found in accident or health policies today have no other basis; though some have real economic importance. Accident policies generally grant double indemnity, twice the amount stipulated in the contract, when the accidents causing death or disability occur in certain specified ways. Some policies have gone so far as to offer triple and quadruple indemnity benefits. Such increased benefits are given generally only in cases of relatively infrequent occurrence.

Policies frequently include a schedule of elective benefits—fixed sums of money granted for a specified schedule of injuries, in lieu of regular weekly indemnities, the amounts being based upon the average period of disability for such injuries. Others include hospital, nursing, or surgical benefits, based upon the weekly indemnity, that may indeed have real value. A recent development of this idea is to provide for payment of all expenses of treatment of injuries—medical, surgical, X-ray, hospital, nursing—up to an agreed upon aggregate amount, thus recognizing that expense is related to the nature of injuries rather than to the amount of weekly indemnity.

A provision of many health and accident policies that requires attention is the so-called "accumulation" feature. An accumulation policy might begin, for instance, as a $5,000 principal sum contract, but, if renewed for further periods of one year each, the benefits based upon the principal sum, e. g., loss of life, limb, or sight, would be increased 10 per cent per year up to a maximum of 50 per cent, and the policy would thus become in five years' time a policy paying $7,500 as principal sum.

7. *Settlement of claims.*—Since premium charges for insurance are based on assumed probable losses, it is clear that an insurance company that experiences loss ratios widely varying from those expected is traveling a road fraught with peril. Careful supervision of claim settlements is important because the company should pay all legitimate claims upon the insurance fund and should not use claim settlements as a means of correcting mistakes in premiums; although, for the proper protection of the insurance fund, the company must resist all fraudulent claims.

The conditions required by accident and health companies prior to their acknowledgment of the claim do not vary widely. Several states have passed standard provision laws, requiring the inclusion in accident and health policies of certain clauses and agreements in the form specified by the statutes. A number of these provisions have to do with the settlement of claims. The policy requires, first, that the company shall be notified in writing of any injury

or sickness on which claims may be based, such notification to be given within twenty days after the date of the accident causing injury, or within ten days after the commencement of disability from sickness. In the event of accidental death, immediate notice is required to be given to the company.

Following the receipt of such notice, the company agrees to furnish the claimant with forms for filing proof of loss, such proof to be furnished to the company within ninety days after the termination of the period for which the company is liable when the claim is for loss of time from disability. In case of claim for any other loss, proof must be furnished within ninety days after the date of such loss. A proper regard for the protection of the company's interest against moral hazard justifies these requirements as reasonable.

The contract further gives the company the right and opportunity to examine the person of the insured as often as may reasonably be necessary during the pendency of the claim, and also gives the right to make an autopsy in case of death, where this is not forbidden by law.

Such provisions seek to give the company full opportunity to investigate the circumstances surrounding an accident or illness, and the presentation of a claim for indemnity for the disability. On the basis of this investigation of the examination of the insured and of the facts presented in the proof of loss, the company is enabled to determine whether the loss

is one covered by the policy, whether the indemnity claimed is reasonable in view of evidence submitted, and whether overinsurance exists.

8. *Accident premium rates.*—The problem of rating in health and accident insurance is more intricate than in life insurance, but less complicated than in fire insurance. In life insurance, prospective policyholders are divided into two classes—the insurable and the non-insurable. Those who are able to pass the company's medical examination pay the rate established for the given type of contract at the age attained. In fire insurance, many minimum or class rates are established for groups of similar properties, but, in many cases, rates are quoted for a given piece of property only after careful consideration of all the elements of hazard affecting it. Accident rates vary with the occupation of the insured, and illness rates vary with his age. Information is available that would indicate further variations in these rates with geographical localities, but to date it has not been considered practicable underwriting, and there are factors that have not been considered. In other words, accident and health insurance rates might well be as complicated as fire insurance rates if attempts were made to measure all the elements of hazard affecting the loss ratios in this business.

In establishing premiums for personal accident insurance at the outset, statistical experience was not available upon which to determine rates, and they were based on a very rough type of underwriting

judgment. In 1891, the International Association of Accident Underwriters was formed for the purpose of promoting harmony and goodwill among American accident companies, and for finding in their common experience a basis for establishing premium rates. For a number of years, discussions of premium rates and classifications continued among individual members of the association, and so many inaccuracies and inconsistencies in rates were discovered that, in 1904, a committee was established to receive and tabulate the common experience of the companies. The result of this effort was the publication, in 1906, of a standard manual of accident rates. The present manual classifies all occupations into thirteen groups, designated by letters as Class A, B, C, D, E, F, G, H, I, J, L, M, and N, ranging from select to extra perilous. Class K covers prohibited risks.

Not all companies write accident policies in all these classifications. Some confine their operations wholly to the better classes of risks in the first two or three classifications, generally termed "commercial risks" as distinguished from "industrial."

Premium rates for personal accident insurance require consideration of several factors, such as the hazard of occupation, the effect of injury upon the performance of duties, the age of the insured, and the use of the automobile. A brakeman or a coal-miner, for instance, is more liable to accidents than is a teacher or a physician. A lacerated finger means

much more to a surgeon or a violinist than it does to a lawyer or office clerk. Considering age, relatively, the younger group may be more active and reckless but recuperate more quickly from injuries. The older group, on the other hand, while more cautious, do not recover so quickly. So, while in the older group accident frequency is less, severity of losses and injuries is greater, the effect upon rates being indicated particularly by experience on accidental death losses. Furthermore, automobile hazard is a factor closely related to occupation. A traveling salesman, for instance, now uses an automobile almost constantly and is thereby exposed to a greater hazard than when he covered less territory and traveled by trains, trolleys and vehicles.

9. *Health insurance premium rates.*—When health insurance was first presented in the United States, the calculation of rates was not based upon any actuarial tables or other mathematical plan but was largely a matter of chance. In 1846, a Philadelphia company issued a policy, that promised a $4 weekly indemnity for disability from illness, and charged a premium of $5.25 at ages 20 to 25, the rates increasing somewhat for succeeding five-year age groups. The company failed, possibly because its premiums were not proportionately adjusted to cover the older age risks and possibly, also, because it was not equipped to combat fraudulent claims.

The "limited risk" policy was first issued in 1897 for a premium of $2 for each $5 weekly indemnity

for all ages and occupations. The policy is still sold, though it is entirely unsatisfactory, because its limited coverage leads to misunderstanding on the part of purchasers. The purchase of this policy by the insured, and his subsequent discovery that many of the illnesses to which he is subject are not covered, has done much to prevent the growth of a wide demand for health insurance.

General health policies are issued at the present time, offering weekly benefits of varying amounts, the premiums charged varying with these benefits, with occupation, and with age. Two age groups only are used, persons between ages 18 and 50 taking one rate and those from 51 to 55 a higher rate.

10. *Accident and health underwriting.*—When the insurance company has established the system of insurance and has fixed its rates of premium, its underwriting problem becomes one of operation under conditions that will maintain solvency, that is, under conditions that will maintain a proper relation between income and outgo. In this respect, accident and health underwriting present interesting contrasts to life insurance and fire insurance. In life insurance, since applicants are divided into two classes—those who pass the medical examination and those who are unable to do so—the problems of underwriting are largely solved when the insurance company has established a premium rate for its contracts and has fixed the requirements of its medical examination. In other words, the underwriting prob-

lem in life insurance is largely the problem of the actuary and the medical director. Fire insurance presents the direct contrast to this situation. After premiums for insurance have been established, the most serious problems of company operation are involved in the task of distributing risks geographically and, in time, in such ways that the actual loss experience of the company will coincide approximately with the loss experience upon which premium charges were based.

In accident and health insurance underwriting, the underwriter's task is not completed with the fixing of a premium rate but, on the other hand, the problem of geographical distribution of risks is not present. Accident underwriting, however, shares with fire underwriting the serious factor of moral hazard, one that is of relatively slight importance in life insurance. In occupations where employment is irregular, there is a temptation to have the accident company pay income during periods of idleness. Acceptability further takes note of the physical condition of the person, for disease may be a factor contributing to cause an injury or to lengthen a period of disability. Selection of risks begins in the field and the agent's understanding of fundamental principles of underwriting and the class of prospects he solicits is an important factor. The underwriter also must always consider reinsurance to distribute risk because several policies may run concurrently on a person and, on the other hand, a num-

ber of persons may procure insurance when going on a special trip, as to a convention, and together form a catastrophe hazard.

In the selection of accident and health risks, the aim is to obtain purchasers in normal physical condition, and to refuse all cases in which the moral and financial responsibility of the applicant is not of the highest character. Without this care, there is a danger that the facts in the application for insurance may be misrepresented, or that the company may classify the case wrongly, or even accept it where acceptance would not be justified in view of full knowledge of facts. There is the further danger of malingery on the part of the insured in making claim, that is, of making pretense to more serious disability than the physical condition of the insured justifies.

The accident and health company, having established a plan of policy coverage and a scale of premium rates, has the opportunity at two stages of its business to influence or adjust the relationship of income to expenditure. It may select its risks among the applicants for policies with such care that its loss experience will be low, or it may carefully scrutinize all claims presented, resisting them wherever possible, and thereby maintain the ratio of claims paid to claims presented at a low figure. The latter method is dangerous. It gives the business a bad reputation in the eyes of the insuring public and reacts to the detriment of the business as a whole.

Generally speaking, however, the accident and health insurance companies deal liberally with claims, but make the original selection of these risks only after the most rigid consideration of the physical and moral factors involved.

It has often been suggested that medical examinations be given to applicants for accident and health insurance. They are required today, usually, only with the non-cancellable policy. The issue of policies without a medical examination is defended on the ground that the examination would entail considerable expense, the saving of which permits the issue of the contract at a lower rate of premium. Moreover, some authorities believe that the higher premium and the requirement of a medical examination would tend to discourage the taking of insurance. As a substitute for such examinations, there is a very careful statement of the prospect's condition of health in his application for insurance, and this statement is made a material factor in the acceptance of the risk by the company. Furthermore, the companies doing this business, as in life insurance, interchange data with reference to the insurability of various applicants and obtain a mass of information from private inspection agencies with regard to any person seeking a policy of insurance.

The written application is thus an important factor in the acceptance of the risk. The truth of the applicant's statements is of importance to the com-

pany in the selection of policyholders, and any misstatement, whether made with intention to deceive, or not, is liable to void the policy if it materially affects the acceptance of the risk or the hazard assumed by the company.

11. *Group accident and health insurance.*—The functions of workmen's compensation as an industrial accident protection are supplemented by the operation of group accident and health insurance. This form of risk coverage was found necessary to protect employees against economic losses occasioned by sickness and also by accidents arising outside their employment. Under workmen's compensation, provision is made only for indemnifying employees for injuries sustained in the course of employment. Furthermore, sickness is not compensable under the compensation law. Group accident and health insurance, however, by expanding coverage from the individual to the group, offers protection to employees against a large class of personal risks, regardless of when, where, or how they occur.

In operation and general purpose, group accident and health insurance closely resembles group life insurance. The advantages that accrue from both these forms of welfare insurance are very similar. Most apparent is the fact that they both tend to stimulate loyalty and increased coöperation on the part of the employees who benefit from the plans. Employers are rewarded for maintaining group life

insurance and accident and health insurance, through a contented working personnel and simplified labor problems.

Group accident and health policies are fairly well standardized as to plans of coverage, but the operation of the plan varies largely according to the experience of the insurance company and the desires of the particular employer. However, certain fundamental principles have been evolved and these tend to serve as general guides in the practice. For instance, only employees who at the time the policy is issued are employed at full time at regular wages can be eligible for protection. It is also stipulated in some policies that the benefits shall be granted only to the worker who has been employed for a probationary period. Weekly indemnity for a specified length of time of total disability constitutes the benefit. Sometimes a principal sum for accidental death, or death or dismemberment, is added. Under ordinary circumstances, the maximum coverage is limited to about 66⅔ per cent of the average weekly earnings. This amount is generally limited to a maximum of $40 per week. In most cases, the period during which the benefit is payable is 26 weeks and there is no benefit payable during the first 7 days of disability, but the limit may be 13, 26 or 52 weeks, and the excepted period 3, 7 or 14 days. In scope, the insurance includes occupational and non-occupational diseases, as well as non-occupational accidents. The insurance rarely applies, however, in instances

where the injured or sick employees insured do not require the services of a physician.

The number of employees insured and the plan of coverage determine the premium charged. For the purpose of ascertaining the premium, there is a monthly accounting. At the time the policy is issued, the employer is required to furnish the insurance company with a list of eligible employees. This list must be carefully supervised and kept up-to-date. The insurer must be promptly informed of the names of new employees as they become eligible, and of the names of employees who are withdrawn from the coverage. The procedure must be followed each month. It is required that a list of those employees whose insurance has been reduced or increased be included. The need for strict compliance with this condition is due to the fact that the premium is based on the status of employment during the preceding month.

The policy is issued on an annual renewal basis. Insurance on the employee ends when he discontinues working for the employer, regardless of how this termination is effected. The company usually reserves the right to examine the payrolls or other records of the employer in order to protect itself as to the amount of insurance issued and premium payable. Also, as means of limiting the insurance to steady workers, floaters are often eliminated by provisions requiring employment for several months before an employee is eligible for any benefits.

While it can be arranged that the employer and employee jointly bear the premium charge, the insurance company contracts directly with the employer and looks to him for payment of the premium. The usual course, where employers do not bear the whole burden, is for them to subtract a portion of the premium, proportionally ascertained, from the employee's wages. One of the purposes of holding the employer directly responsible for the premium payment is to gain his coöperation in discouraging malingering by the employee. Since the employer is essentially interested in keeping the costs at a low level, the insurer is afforded some certainty that needless payment of benefits will be avoided. Similar to group life insurance, the employer receives a master policy and each employee an individual certificate.

In accordance with the method adopted for determining rates for group life insurance, rates on group accident and health policies depend somewhat on the general working conditions and class of employees under consideration. Variations in rates occur because of special combinations of circumstances covering factors such as the following:

(a) Type of risk
(b) Special occupational hazards
(c) Percentage of older employees
(d) Percentage of women in total number of employees
(e) Waiting period established

12. *Accident and sickness insurance under Canadian law.*—Many of the insurance acts in Canada deal specifically with accident and sickness insurance. In many provinces, *e.g.* Ontario, "statutory conditions" are provided for, which must appear in, and form part of, every policy. Variations from the statutory conditions can be made only in certain circumstances, and then only if the court before which any question is tried holds the variation to be just and reasonable. These conditions deal with such matters as change to more hazardous occupation, warranties and representations, commencement of contract, termination of contract, proof of claim, right of examination, right to assign policy, and limitation of actions.

In the province of Ontario, for example, if the accident happens to the insured while engaged in an occupation more hazardous than the occupation stated in the policy, the liability is limited to such amount as the premium paid would have purchased for the more hazardous occupation. The Ontario conditions also make it clear that the insured may designate a beneficiary and change, or revoke, any prior appointment. These statutory conditions are not entirely for the benefit of the insured; many conditions are in relief of the insurer, *e.g.*, a condition that any action shall be commenced within one year from the time the cause of action arose. The object of the legislature is to provide uniformity and fairness in insurance policies.

REVIEW

Mention some of the unsatisfactory features in accident and health policies.

What meaning do the courts give to "external, violent, and accidental means" as the phrase is used in an accident policy?

Name the restrictions placed on some accident policies that destroy their apparently liberal features.

Discuss supplementary benefits in accident and health policies.

Name the principal groups into which occupations are classified for insurance purposes.

Contrast accident and health underwriting with that of life and fire insurance.

Describe the benefits offered in a group accident and health policy.

CHAPTER VIII

LIABILITY INSURANCE

1. *Types of liability insurance.*—Economic losses resulting from accidents have given rise to three distinct types of insurance. One of them—personal accident insurance—may be purchased for self-protection. A second type protects the individual against losses that arise from injury he may do to others. When accidents occur, someone may be responsible for the results they cause and legally liable to the injured person for injuries sustained by him. Such liability may result in economic loss, and against this a man may protect himself by the second type—liability insurance. This insurance is intended primarily for the benefit of the man who must pay for the injury done, although indirectly it benefits the injured person by making his indemnity more certain than would be the case if damages were payable solely from the resources of the negligent party. A third type—workmen's compensation insurance—an outgrowth of "employer's liability insurance"—has for its primary purpose benefit to the victims of industrial injury. This type, however, works indirectly to the benefit of the employer by converting

an uncertain and variable outlay into a fixed and definite expense.

Logically, it might seem more appropriate to follow the topic of personal insurance against accident by a discussion of workmen's compensation insurance, because in each case the direct beneficiaries of the insurance are the victims of accidents. Historically, however, the latter form of insurance was rendered necessary by a comparatively recent development affecting the liability of employers, and it is, therefore, more convenient to consider first the facts of liability and the insurance incidental to it.

2. *The liability risk.*—Liability is a term of broad import, but we are concerned chiefly with the obligation toward others arising from personal injuries to them for which a person is legally responsible. Liability insurance is mainly a means of distributing uncertain losses and legal expenses arising through litigation incidental to the operation of this legal principle and the imposition of damages in such cases by courts of law.

The law of negligence defines this liability. As a general rule, negligence is chargeable when, without intention of harming another, a person fails to exercise the care necessary to protect another from injury, and such injury results. In such cases the injured person has redress at law against the person responsible for negligence, as above described, that has caused the injured person loss through accident.

The common law of negligence was developed be-

fore the relationship of employer and employee existed, and was concerned with legal liability to outsiders as, for example, where a third person was injured by a serf and the lord's responsibility for the injury was in question.

Later, when the status of employer and employee was established, accidents occurring to employees came within the scope of the law of negligence, such liability to employees having been recognized by statute in England in 1837 and in the United States in 1841.

Employer's liability, as such, has had a development distinct from the law of negligence, though following its general principles. Certain obligations rest upon the employer. He must provide suitable fellow servants, establish proper rules, warn of danger, and furnish safe appliances and a safe place to work. If the employer meets these conditions, there is no liability on his part for damages to his employees when injuries are sustained.

In the course of the developments under employer's liability laws, the plaintiff in a suit at law was obliged at one time to prove that the employer was negligent and that his injuries were due to such negligence. The employer, on the other hand, might escape liability if he could show that the injury was caused by a fellow servant of the injured worker, or that the injury resulted from a risk assumed by the employee in connection with his employment, or by showing that the servant's own negligence in some

way contributed to the injury. Further means of escape from the liabilities imposed by the law of employer's liability were open to the employer. Under the common law, the right of action for damages because of personal injury expired with the death of the injured person, and recovery was, therefore, impossible for dependents in all cases of injury resulting in death. Again, employers, realizing the possibility of having damages imposed upon them for personal injuries to employees, many times required applicants for positions to sign contracts relieving the employer of all liability for personal injury, a practice referred to as "contracting out." Such contracts, being a condition precedent to employment, were sustained under the common law.

The earlier rules of employer's liability underwent changes from time to time, as they were found inadequate to meet the situation demanded by gradual industrial development. They were modified both by court interpretation, and by statutes, and, in the later years of employer's liability, by special employer's liability acts. Such modifications affected principally the interpretation of the so-called employer's defenses. Thus, the fellow-servant doctrine was modified by defining carefully who was to be considered a fellow servant and by eliminating, for instance, foremen and employees in other departments. In other instances the fellow-servant rule was abrogated. In certain jurisdictions, the doctrine of contributory negligence was replaced by the doctrine

of comparative negligence. According to the former, the employer was relieved of all liability if the employee was at fault to the slightest degree. By the revised doctrine, if it could be determined, for example, that employer and injured worker were equally at fault, they would have to stand the responsibility for the loss equally. In other words, damages would be assessed to only 50 per cent of the amount that would have been obtainable in case the employee had not contributed toward the cause of the accident.

3. *Relation of the liability risk to the personal accident risk.*—The law of negligence has developed in modern times along two lines, one body of principles defining the duty of persons in protecting the public from bodily injury, and another somewhat separate and distinct, defining an employer's duty in protecting employees from accidental injury. In its broadest sense, the liability risk may be defined as the risk of uncertain loss due to the imposition of liability for neglect of any of these duties.

The liability risk differs essentially from the risk of personal accident, and, speaking from the standpoint of employees, an insurance solution of the former may, or may not, represent a solution of the latter. Only in so far as personal accidents are compensated in cases where someone can be proved to have negligently caused them, can the law of negligence be said to be a solution of the accident problem. It is impossible to state definitely what pro-

portion of work accidents falls in this class. Attempts that have been made to classify industrial accidents by causes reveal the fact that those definitely attributable to the negligence or fault of the employer are a very small proportion of the total number.

The available evidence goes to show that the hazard of industry is responsible for the vast majority of industrial accidents. Any employer's liability law, therefore, that permits the application of the doctrine of assumption of risks throws upon the shoulders of the injured worker, or his dependents, the major economic loss due to industrial injuries. For this and other reasons, public opinion soon concluded that employer's liability was practically a failure as a solution of the industrial injury problem. It has been almost completely replaced in recent years by the newer principle of workmen's compensation, which has been adopted in this country in every state and territory except Arkansas, Florida, Mississippi and South Carolina. Undoubtedly, the next decade will see the entire abolition of the discredited system of employer's liability.

4. *Function of liability insurance.*—While the law of negligence is not a satisfactory solution of the personal accident problem, it creates a problem that requires an insurance solution. Many cases of personal accident are taken to court for adjudication and damages are obtained, instances occurring where awards in very large amounts are given. The business man or property owner who faces the danger of

thus being brought into court and required to pay a large sum, because he, or someone for whose actions he is legally responsible, has been proved negligent in some regard, faces a most serious economic uncertainty. Those exposed to such losses include manufacturers, contractors, owners or tenants of buildings, owners of vessels, automobile owners, and, in fact, any persons who own property that may be levied upon to satisfy a claim for damages. Liability insurance represents the insurance solution of this liability risk, and is only indirectly related to the problem of meeting the economic loss resulting from personal accidents, for its province is the protection of individuals, firms, and corporations against legal liability. If there is no such liability, there is no indemnity for the injured person, whereas the question of liability or negligence plays no part in the case of personal accident insurance. In the latter case, where an injury occurs that falls within the scope of the insurance coverage, payment of the prescribed benefit follows automatically.

5. *Liability insurance; nature and coverage.*—The risk of loss from the imposition of damages upon a person because his negligence has resulted in personal injury to another is the essential uncertainty that has brought about the development of liability insurance. The obligations assumed by the liability insurance carrier under the form of contracts now in use include the furnishing to the insured of certain legal service, the payment of certain costs, and, most

important, the payment for damages assessed upon the insured because of negligence.

6. *Kinds of liability insurance.*—The varying circumstances under which a claim for damages may arise necessitate the issue of a wide variety of policies to cover this risk. Up to this point, liability and insurance incidental to it have been discussed from the standpoint of personal or bodily injuries. Any attempt to enumerate the kinds of insurance available reveals the fact that the legal liability that has been discussed also extends to damage done to property, except in the case of employer's liability. The term "public liability insurance" usually refers to coverage offering protection against claims for personal injuries, whereas, "property damage liability insurance" refers to coverage claims for damage to property.

The following classification includes the main types of insurance issued today:

(A) Personal injury coverages
  (1) Public liability insurance
    (a) Manufacturer's and contractor's
    (b) Owner's, landlord's, and tenant's
    (c) Residence, farm, and private estate
    (d) Theater
    (e) Elevator
    (f) Team
    (g) Automobile
    (h) Druggist's, physician's, dentist's and hospital's (malpractice)
    (i) Consumer's (product)
    (j) Contractual

(2) Contingent liability insurance
  (a) Owner's and contractor's protective insurance
  (b) Landlord's protective insurance
  (c) Automobile contingent (non-ownership) insurance
(3) Employer's liability insurance

(B) Property damage coverages
(1) Property damage liability insurance
  (a) Team
  (b) Automobile
  (c) Miscellaneous
(2) Contingent property insurance
  (a) Team
  (b) Automobile, etc.

Public liability insurance provides indemnity for the insured against loss by reason of his legal liability to others, not his employees, for bodily injuries accidentally sustained, or for death at any time resulting from such injuries. The classification further indicates several important types of public liabilities, for each of which distinct policies are issued. The fundamental character of the risk is the same for all these contracts, their differentiation being necessary because of the varying types of persons or property involved in the coverage. In all of these types, except the last enumerated (contractual), the insured's own legal liability is covered. In contractual liability, liability of others deliberately assumed by the insured as a result of contract is covered, as, for instance, where a manufacturer, to induce the railroad to build a spur track into his property, agrees

not to hold the latter responsible in case of accidents occurring as a result of the existence and operation of the spur.

Contingent liability insurance covers also liability of the insured to the public, but the liability in this instance is indirect. The landlord's protective policy is written in favor of the owner or general lessee of a building in cases where he has leased the building entirely to a tenant and the tenant completely controls the premises. The owner's or contractor's protective liability covers the insured owner or contractor against claims due to accidents to the public as a result of construction operations carried on by independent contractors or subcontractors for the owner or contractor. The automobile contingent liability policy covers the liability of the insured for public liability losses, because of automobiles used in his business but operated by employees, agents, or others.

These coverages rest upon an interesting twist of the general law of negligence which holds that, even where the actual operations directly causing an accident are regarded as creating primary liability to the public, the person behind the scenes for whose benefit these operations are being conducted must also assume his share of responsibility to the public. For example, where a building is being erected for an owner by an independent contractor, the contractor is required to conduct his operation carefully with regard to the public safety. But there are

certain fundamental duties that the owner as beneficiary of the work cannot escape. Here the contractor purchases direct public liability protection and the owner purchases protective liability protection. There may be three stages of liability in these cases, if the general contractor sublets a portion of the work. In such a case, the primary coverage is purchased by the subcontractor, the general contractor purchases contractor's protective insurance, and the owner purchases owner's protection insurance. In this way every interest is protected.

The term "liability" in each instance refers to an obligation to pay damages because of negligence that has resulted in personal injury. Negligence might equally result in the destruction of the property of others, but the public liability contract, as the term is used technically, does not furnish protection against such loss.

The possibility of claims arising because of the damage or destruction of the property of others has made it desirable to include with the ordinary public liability coverage for property damage, as well.

Such coverage is available not only in the case of team and automobile owners, but also to manufacturers, contractors, and others whose obligations to the public render insurance protection a necessity.

The automobile or elevator policy also may include protection against collision. This feature indemnifies the insured against actual loss or damage to the insured automobile or elevator when caused by ac-

cidental collision with another object. The collision coverage may be written with a deductible clause. For example, if the collision coverage has a $50 deductible clause, and the insured suffers a loss through a collision amounting to $200, the insurance carrier is liable to the insured for $150, the first $50 of loss falling upon the insured himself.

Insurance on steam boilers, flywheels and electrical machinery should be mentioned in this connection, for it furnishes a special combination of the types here discussed. This branch of insurance covers public liability, employer's liability, damage to the property of the insured, and liability for property damage to outside persons. Where a boiler explodes, for example, all these types of risk are involved in a single occurrence, thus making it desirable to have a single coverage to provide for all contingencies.

There is a companion coverage, known as "use and occupancy" insurance, that protects the insured against loss on account of the discontinuance of operations following the occurrence of accident. A boiler explosion, for example, may put out of commission temporarily the entire power unit of a manufacturing establishment, causing a shutdown that is costly to the owner, particularly where work that is in process must be delivered on schedule. Use and occupancy insurance provides for the prompt resumption of manufacturing activities and, in the interim, compensates the insured for lost profits and expenses.

7. *The amount of the insurance.*—The indemnity payable by the insurance carrier under the liability contract is based on payments for injury sustained, or for damage to the property of others. The insurance carrier, of course, may agree to settle claims out of court, and assume liability for the payment of such agreed amounts, but the insured cannot make such agreements and hold the insurance carrier liable.

The liability insurance policy does not guarantee to indemnify the insured to the full extent of each award or settlement made. As in several other types of insurance, the coverage is limited. The standard limits for which rates are ordinarily quoted, for either employer's liability insurance or public liability insurance, are $5,000 to $10,000. These figures mean that, in any single accident that may occur during the term of the policy, the insurance carrier will be liable to a maximum amount of $5,000 for an award or settlement to any one person in one accident, and (subject to this limit per person) to a maximum of $10,000 for awards or settlements to all persons in any one accident. The standard limit for automobile property damage liability insurance is $5,000 per accident. As these limits are too small to offer adequate protection in many cases, the carrier will quote premium rates for higher limits. Limits in the current rating manuals are quoted as high as $50,000 to $300,000 for public liability and $100,000 for property damage liability.

8. *Other liabilities assumed by the carrier.*—Be-

sides undertaking to pay claims for damages within the limits stated in the contract, the insurance carrier promises to indemnify the insured for all costs levied against him for legal procedure, and to pay all the expenses of investigation, negotiation, or defense of a claim, even where the claim is groundless. Furthermore, the carrier undertakes to make inspections of the plant or property of the insured and to make suggestions for improving it in such a way as to reduce the liability to accident. The carrier engages further to defend the insured in all suits brought against him involving claims accruing during the term of the contract.

9. *Term of the insurance.*—Liability insurance policies usually are issued for a maximum term of one year. Public liability policies covering landlord's, owner's and tenant's, theater and elevator public liability, and resident and farm public or employer's liability contracts may be issued for a maximum of three years (except in New York). The contract contains a provision for cancellation at any time by either the insured or the carrier, and in such cases the method usually is followed, as in other forms of insurance, of returning a pro-rata share of the premium, in case the insurer cancels, but of charging a higher rate, called short-rate, for the expired portion of the term, in case the insured cancels, the insurer returning the difference.

10. *Premium rates.*—In liability insurance, the rate basis varies according to the nature of the risk.

In employer's liability and in manufacturer's and contractor's public liability insurance, rates are quoted on a payroll basis, at so much per $100 of payroll. Public liability policies issued to owners, landlords, or tenants consider the units of exposure, a given amount of frontage of a building, and a given floor space or area. The rating manual quotes two rates for risks of this type, a frontage rate and an area rate, the former giving a charge per linear foot of frontage, and the latter charging per 100 square feet of floor space. Elevator liability rates are quoted per individual elevator; team rates per team; and theater rates per seat. Residence and farm public liability rates are quoted per residence or per acre of land on the farm. In all cases, the rate is quoted on an annual basis. Minimum premiums are provided for each class of risk to insure the carrier a premium that will cover the actual cost of a single transaction.

11. *Liability and underwriting; risk distribution.* —Liability insurance carriers have several methods of distributing their risks in such a way as to maintain a safe relationship between their obligations and their premium income. Two methods that are used are the accumulation of surplus and reinsurance.

The carrier, as already noted, sets limits on the amount it will pay for a given accident. If these limits were followed rigidly, the carrier would effectively meet its problem of catastrophe losses; but to establish and maintain them would defeat, in large

part, the purpose of the insured to obtain protection against unusual losses. The result is that carriers every day write policies with limits far in excess of the standard, adjusting their premium charge accordingly. This practice, however, creates a catastrophe hazard for the insurance carrier that may defeat the whole plan of insurance unless other means are found for meeting unusual losses.

As a practical means of meeting this situation, at least in part, each carrier builds up a surplus that may be used as a balance between periods of heavy and of light losses. This surplus, however, cannot be depended upon exclusively, since time is required to create it and unusual losses may occur before it is available. A far more reliable method is "reinsurance," whereby the originating carrier that writes a risk retains a nominal amount of liability for its own account and passes the excess over to one or more other carriers. In this manner, a liability of great magnitude is distributed so that no single carrier will be burdened unduly, even though an accident of large proportion involving an excessive amount of damages may occur.

12. *Liability insurance and workmen's compensation.*—As far as protection against the results of nonindustrial accidents is concerned, the law of negligence still protects the victims of accidents, while liability insurance protects those liable for damages.

As far as industrial accidents are concerned, liability insurance is interesting chiefly because it was

an important stage in the development of a fuller protection of the worker and a more satisfactory adjustment of the employer's obligations through workmen's compensation legislation. This type of insurance has replaced employer's liability almost everywhere. The development of workmen's compensation, the motives for its enactment, and operations under the laws are discussed in Chapter IX.

In workmen's compensation, the theory of indemnity is carried beyond formal legal restrictions. Neither the question of negligence (except negligence of a high degree as, for example, intoxication or willful intent at self-injury) nor the standard rules of evidence control the procedure. The state is interested only in ascertaining whether the employee was injured in the course of his employment and, if so, what would be the just measure of compensation that he should receive from his employer. To make certain that the victims of industrial accidents receive the awards made to them by the state boards, employers usually are required to carry insurance for the purpose of satisfying such awards, or otherwise to demonstrate their ability to pay benefits.

13. *Compulsory automobile insurance.*—The paternalistic attitude of the state toward the unfortunate victims of industrial injuries is being extended also to the victims of automobile accidents.

Massachusetts has enacted a compulsory automobile insurance law, while Automobile Financial Responsibility Laws in Connecticut, New Hampshire,

Pennsylvania, New York, New Jersey, and California are designed to render more certain than has been the case heretofore that persons who are injured on the public highways will be able to obtain proper redress for their injuries.

The necessity for such legislation has grown acute in recent years, as the number of automobile accidents has mounted. It is estimated that in one year some 31,000 deaths occurred as a result of automobile accidents, while the number of non-fatal injuries from accidents of this type ran into hundreds of thousands. A number of the persons injured in these accidents have found themselves deprived of any indemnification after having exhausted their legal remedies, because those responsible were unable to respond in damages. This condition prevails because many motor-vehicle operators do not carry automobile public liability or property damage liability insurance.

Some motor-vehicle operators, who have little to lose as a consequence of any accident for which they are responsible, are inclined to be careless and even wantonly negligent. Partially to remedy this situation in New York, the Financial Responsibility Law, effective in September, 1929, was passed by the state legislature. This law is typical of several others that are now effective. In fact, it is a modification of a model bill prepared by the American Automobile Association and introduced in practically every legislature in this country in recent years. The financial

responsibility provisions do not apply to every motorist, but only to a person who for fifteen days fails to pay a final judgment for damages for any amount on account of personal injury resulting from a motor-vehicle accident, or a final judgment of $100 or more for property damage resulting from a motor-vehicle accident.

Provision is made also for applying the law to a person who has been convicted of:

(a) Speeding or reckless driving, if injury to person or property has resulted
(b) Operating a motor vehicle without a license
(c) Operating a motor vehicle while intoxicated
(d) Leaving the scene of an accident
(e) Any offense in any other state that would be a violation of any of the foregoing, if committed in New York

If a person comes within any of the enumerated provisions and is required, therefore, to furnish proof of his financial responsibility, he may do so in the following ways:

(a) By securing a motor-vehicle liability policy and filing a certificate of the policy with the state
(b) By filing a bond with the state
(c) By depositing money or collateral with the state

The penalty of suspension of license to operate a motor vehicle in New York affects those who come within the provisions of the law and who do not comply with one of the prescribed methods of establishing financial responsibility. This suspension also

may apply to non-residents who may thereupon be denied the use of the highways within the state in the same manner as residents are affected.

The claim is made that this law is a forerunner of many more drastic ones of a similar nature. Legislation, such as New York and Massachusetts have enacted, marks a new tendency that will serve as a foundation for later developments along the same line. But this type of legislation must be supplemented by laws and regulations seeking to prevent the occurrence of automobile accidents, since the prevention of an accident not only makes it unnecessary to provide indemnity for those who may be injured, but also saves an economic and social loss, in terms of incapacity and suffering, that has no monetary equivalent. This is an important point that is too often overlooked by those who sponsor so-called "compulsory automobile insurance" legislation. Those who are injured, through no fault of their own, deserve consideration; but it is extremely important that the more fundamental problem of stopping automobile accidents at their source should not be neglected. J. F. Gildla, of the Travelers Insurance Company, writing in the *Journal of Commerce,* states:

> If the increase in fatal accidents for the next four years continues at the same rate as during the last four years, there will be approximately 44,000 persons killed in 1934. More rigid tests for drivers' licenses and more severe penalties for motor law transgressions might ameliorate the situation somewhat. Until the average citizen realizes his

responsibility, however, and takes precautions that will tend toward safety, the problem will not be solved.

14. *Automobile insurance regulations in Canada.* —The Province of Ontario has passed a financial responsibility law similar, in part, to the New York statute to which reference has been made above. The Ontario Act dates from the first of September, 1930.

Many of the Canadian insurance acts have special sections dealing with automobile insurance. The Ontario Act provides for "statutory conditions" that must appear in every policy, any variation being forbidden except under certain conditions, and even then the variation must be approved by the court in a given case. Many of these conditions limit the liability of the insurer and should be noted by the automobile owner. Any change material to the risk will void the policy. The insurer will not be liable, while the automobile, with the knowledge, consent, or connivance of the insured, is driven by a person under sixteen, or by an intoxicated person. Unless otherwise specifically stated in the policy, or endorsed thereon, the insurer will not be liable if the interest of the insured is other than unconditional and sole ownership, or if the automobile is, or becomes, encumbered by any lien or mortgage, or if the insured assigns his interest, or if at the time of accident other insurance of the same interest was in force. Other provisions are also included. Thus, it may be a complete defense to an action on a policy, if the insured in his application omitted to communicate to

the insurer the fact that the purchase price of the car had not been fully paid and that it was subject to a lien.

It is extremely important, therefore, that the application for insurance be closely scrutinized and that the insurer be promptly notified of any change material to the risk.

It has been held in Ontario that the fact that the driver of the automobile was intoxicated at the time of the accident will not necessarily invalidate the policy, if the owner did not know that the driver was intoxicated.

Entirely apart from statutory conditions, the insurance may be void on grounds of public policy. In a leading case in Ontario, where the plaintiff was driving his own car in an intoxicated condition and severely injured a person who obtained judgment against him for a large amount, the courts held that it was contrary to public policy to indemnify the plaintiff against his own criminal acts and the insurance company was not liable on the policy.

The opinion has been expressed in the Canadian Supreme Court that in law an insurance company cannot legally insure the owner of an automobile against anything arising out of driving at a prohibited speed. In Ontario, any doubts on this point have been settled by an amendment which expressly states that it shall be lawful for an insurer to contract to indemnify an insured against financial loss occasioned by reason of liability to a third person,

whether or not the loss has been caused by the insured through negligence, or while violating the provisions of any municipal by-law, or any Act of the Province of Ontario.

REVIEW

Discuss the origin and development of the law of negligence and its application to modern industry.

State the nature of the liability risk and how it differs from the risk of personal accident.

Describe the function of liability insurance.

Mention some of the main types of liability insurance.

State how the companies determine the amount of indemnity and what liabilities they assume.

Describe a compulsory automobile law.

CHAPTER IX

WORKMEN'S COMPENSATION INSURANCE

1. *The insurance risk.*—Workmen's compensation insurance is an outgrowth of the enactment by the legislatures of various states and territories of laws requiring employers to compensate their employees for injuries occurring in industry. These laws are the fruit of an awakened public opinion regarding the serious social consequences of industrial injuries and the inadequacy of employer's liability as a solution of the problem. The basic principles of compensation legislation must be considered before the insurance features are discussed.

Workmen's compensation makes industry responsible for indemnification of a workman or his dependents for any economic loss due to injuries arising out of, and occurring during, employment. The employer, as the representative of the industry, initially bears the burden of cost of compensation. The basic principle of liability is punitive. He who has been negligent must pay. In contrast to this conception, the guiding principle of workmen's compensation is that the industrial system is fundamentally responsible for injuries, and that the cost of injuries should be a charge against production.

Workmen's compensation places the primary responsibility for payment for industrial injuries upon the employer, but recognizes frankly that the ultimate cost usually will be shifted to the consumer in the form of higher prices for the goods. By placing the burden upon the employer in the first instance, workmen's compensation accomplishes a most desirable result, since it brings forcefully to the attention of the employer the cost of industrial injuries and stimulates him to take extraordinary measures to eliminate them or, at least, to reduce their frequency and severity.

The first legislation of this nature was adopted in 1883, when Germany passed a sickness insurance law, under which compensation was granted to workers for the first thirteen weeks of disability due to accident. In 1884, a workmen's compensation law was enacted which applied the principle to several of the more hazardous industries. It has been gradually extended. Great Britain adopted the principle in 1897, for a small number of the more hazardous industries, and extended it, in 1906, to cover most industries. All the modern industrial nations of Europe long ago substituted the principle of compensation for that of liability in dealing with industrial injuries.

The first American laws on the subject were either declared unconstitutional or became dead letters because they lacked sufficient force to insure the use of the compensation principle by employers and employ-

ees. It was not until 1911 that permanent legislation was effected, New Jersey and Washington enacting the most important laws during that year. So rapidly has the new method of dealing with industrial injuries been accepted that most of the states have passed compensation acts. Hawaii, Porto Rico, and Alaska have such acts, and the United States Government has passed one covering its civil employees. With the enactment of the United States Longshoremen's and Harbor Workers' Compensation law, in 1927, an extension of the compensation principle was effected. Under this law, a system was created for compensating employees who suffered injuries in certain maritime employments. To come within the act, it is essential that the injury occur while the employee is engaged in employment upon the maritime waters of the United States and its territories. The principle application of this law is to longshoremen and to the crews of inland marine and coastwise vessels—two classes of employees that constitutionally are not within the jurisdictions of the several states.

Another large class of employees with similar status—those engaged in interstate commerce—is still subject to a special employees' liability statute. The problem of this class awaits solution.

2. *Coverage of workmen's compensation laws.*—As might be expected, with so many new laws passed in so short a time, there are wide variations in application of the principle. At the beginning of the com-

pensation movement in the United States, there was little experience to be used as a guide, except that of Europe. Moreover, here was a new principle embodying possible heavy charges upon industry, and it seemed the part of wisdom to proceed slowly. As a result, the earlier laws were quite conservative, both as to scope of application and benefits. But greater liberalization has come with passing years until, in the more advanced states, present laws are practically universal in application and benefits are as substantial as they may safely be made without encouraging malingering.

Analysis of the coverage of compensation laws in the United States requires consideration of four factors: first, the availability of remedies other than compensation; second, employments or industries covered by the laws; third, injuries covered; and fourth, benefits.

3. *Alternative remedies.*—Some compensation laws are of the elective type, while others are compulsory. The former type gives the employer, sometimes also the employee, a choice between accepting the principle of compensation, or continuing under a modified form of employer's liability. This provision acts as a virtual compulsion that the employer accept workmen's compensation, because few will be willing to take their chances under employer's liability in its modern forms with certain employer's defenses removed. Similar compulsion is exercised with reference to the employee, because if he rejects com-

pensation, his remedy lies under employer's liability with the employer in full possession of the three ancient common law defenses. Furthermore, the law usually makes the acceptance of compensation automatic, unless employer and employee take affirmative action to indicate election of employer's liability. Of the workmen's compensation acts now operating within the jurisdiction of the United States, about two-thirds are elective, and one-third compulsory. Elective laws were adopted, in part, because of a fear lest compulsory acts might be declared unconstitutional, as was the New York Act of 1910. At the present time, however, the principle of the compulsory acts is upheld by the United States Supreme Court and there is no doubt that the typical law of the future will embody the principle of compulsion.

4. *Employments or industries covered.*—No compensation law in the United States today covers all the workers within the jurisdiction of a given state. At first only so-called "hazardous" employments were covered, but the trend in more recent times has been to broaden the coverage and to bring more and more employees within the scope of the law. The percentage of employees covered varies widely with the different states, running to almost 100 per cent in some cases and down toward 30 per cent in others.

The most frequent exclusions are farm, domestic, and casual labor. Exclusion of farm and domestic employees probably has been due to political considerations. Recent years have shown a tendency to

revoke the exception due to casual labor. A very general inclination on the part of legislatures, as the beneficial effects of these acts are seen, is to extend the law to more and more workers.

5. *Injuries covered.*—The intent of the laws has been generally to cover injuries received in the course of, and arising out of, employment. The injury, therefore, must be the result of a hazard of employment and not one of existence. No state holds the employer liable for every injury occurring to an employee. Some laws, following accident and health insurance policies, specify that the injuries must have occurred by violent, external, or accidental means. Other laws require merely that the injury shall be accidental, while still others more broadly use merely the term "injuries," or "personal injuries." The courts generally have been very liberal in interpreting these clauses. The most serious question of interpretation has been whether the compensation extends to occupational diseases. Where phrases such as those cited above have been used, the courts generally have ruled most erratically concerning the inclusion of occupational diseases.

In several states, occupational diseases have been covered by specific legislative enactment. The reason for such enactments has been the recognition that many diseases can be traced directly to the nature of the occupation in which the diseased worker was employed; further, that the distinction between an occupational disease and an industrial injury is not

always readily discernible. In many employments, unusual conditions of dust, poisons, harmful germs, improper ventilation, extremes of temperature, excessive dampness, and poor lighting are responsible for the disablement of many workers. The losses occasioned by occupational diseases are considerable. Two legal methods are available for providing compensation for industrial diseases. In one, a number of diseases have been named and included in the workmen's compensation act. In the other method, all industrial injuries, including diseases caused by occupation, are included as compensable in the law. At present, compensation legislation shows a tendency to include occupational diseases in the benefit schedules.

In every state, an injury, to be compensable, must happen in the course of employment and, in most cases, must arise out of the employment, the latter phrase excluding accidents that are not a result or a consequence of carrying out the duties of one's occupation. In addition to these exceptions and limitations, every act excludes injuries that are self-inflicted or that result from causes such as intoxication, willful misconduct, or gross negligence on the part of the injured employee. These latter exclusions are based upon constitutional difficulties in this country that properly oppose the entire abrogation of the old common law defense of contributory negligence.

6. *Benefits and beneficiaries.*—The basic theory

of workmen's compensation is that payment shall be related to economic loss, in contrast to the negligence theory of payment for a wrong committed. Adequate coverage under this principle, therefore, requires compensation for income lost as a result of injury, for medical aid, and, if possible, for the rehabilitation and retraining of the injured worker. The entire array of benefits, of course, must be duly guarded against malingering on the part of the injured worker.

The compensation scale of most acts is based upon the loss of earning power of the injured worker. The awards ordinarily are a definite proportion of the worker's earnings, varying usually between one-half and two-thirds of the wages. These proportions are subject also to maximum and minimum limits, regardless of wages. A few laws provide a compensation scale not related to wages.

In the beginning of compensation legislation, the importance of adequate medical benefits apparently was not realized. Aside from the just and proper treatment of the injured worker, immediate and adequate medical care is one of the best means of reducing future compensation payments, and thereby reducing cost. Recognition of this fact has brought about an increase in medical benefits in many acts in recent years. The rehabilitation of the injured worker and his retraining are likewise important means of doing justice to him and of reducing the social and economic cost of accidents. Attention was

called in a previous chapter to a law of Congress appropriating funds to be used in aiding any state that takes up this work of rehabilitation, and several states are now engaged in the task of working out proper methods of returning injured workers to industry.

7. *Restrictions on benefits.*—Another important consideration with reference to compensation benefits is the time when they begin and when they end. Most laws provide a waiting period between the time of the injury and the date when compensation payments begin. This period usually is placed at one week, but in some laws it is three days, others ten days, and in some as much as two weeks. A number of the laws require no waiting period, or provide that, if the disability extends beyond a certain period, compensation shall be paid from the date of the accident. One reason for the waiting period is to avoid the cost of paying benefits for disability in cases of very slight or inconsequential injuries, thus enabling legislators to augment the benefits in serious cases to the point where they are more nearly adequate, without unduly increasing the total burden upon industry. A more fundamental reason is that such an interval gives opportunity to ascertain the real nature of the injury and thus provides protection against malingering.

Equally important is the question of the length of time during which periodic payments shall be made. If compensation is to parallel the financial

loss resulting from the injury, the benefit should, in theory, continue throughout the period of disability. None of the earlier compensation laws passed in the United States attempted to meet this test, limitations invariably being set upon the number of payments to be made in case of disability. With no experience for a guide in this early legislation, it was quite proper to be conservative, for an inadequate act that is, nevertheless, certain in its payments is far better than one that promises financial returns that can never be made.

In more recent years, with increasing experience by which to measure the length of disability and, therefore, with more satisfactory knowledge of costs, the tendency has been to increase the length of the period over which disability payments will be made. In some acts, periodic payments for permanent total disability run for not less that 260 weeks, the usual period being about 500 weeks, and, in many acts, for life. These payments, in many of the acts, are subject to a maximum total payment, for example, $3,000 or $6,000. Payments for partial disability and payments to dependents in fatal cases are determined on the same principle.

In case of non-fatal injuries, the compensation usually is based on the injured worker's wage and is paid during disability. Where death results from the injury, compensation may vary with the size of the worker's family. If children are beneficiaries, the payments usually are continued in their behalf

until they reach a specified age. Payments to widows may continue until death or remarriage. In many states, there are no provisions relative to remarriage of widows, and the presumptoin is that the full statutory amounts are paid.

8. *The administration of compensation acts.*— A compensation act, with its complicated schedule of benefits and its many other provisions relating to injuries in industry, clearly will not operate of its own accord. In early compensation legislation, settlement was made between representatives of the insured and of the employer, these settlements in some cases being referred to a court for final acceptance, or to be so referred in case of disagreement. Several years' experience under the court system of administration proved it to be unsatisfactory, since it resulted in failure to receive compensation in some instances, and underpayment in others.

In more recent years, the tendency has been away from the court method of settlement and toward the placing of the administration of the act in the hands of a commission. Over two-thirds of the laws are now administered by commissions, and several laws permit settlement directly between employer and employee, with disputes to be referred to an arbitration committee and eventually taken to the courts, if necessary.

The advantage of having a commission authorized to administer the law lies in its position as an impartial and authoritative body to see that the intent

of the law is carried out. Immediate notice of an injury furnished to this body puts it in touch with the case at once and enables it to obtain the facts upon which a just settlement of the claim can be determined.

9. *Procedure of a compensation case.*—The granting of an award is conditioned on a proper compliance with the following procedure. If an employee is injured, he is required immediately to notify his employer as well as the compensation board, or its prescribed representative. Failure to give notice within the period of time designated by law may result in the barring of the employee from any recovery of compensation. It is provided, however, that failure to give notice may be excused upon the following grounds: either that the employee became mentally incompetent as a result of the accident, or the employer was not prejudiced even though he failed to receive the notice.

In addition to the required notice, the injured employee must also file a claim for compensation. Upon receipt of these papers, the commission usually has the case prepared for a hearing, which is conducted in an informal manner. Appeal may be taken to the courts from a decision of the commission, but the findings of fact by the commission are final, the appeal being permissible only on legal grounds.

10. *Third-party action.*—If a third party, not in the same employ, caused the employee's injury, the injured employee has an action at law for damages

against the third party. To forestall any loss to the injured employee, if the third party is not held liable, the claimant generally can protect himself under the compensation act in the following manner: A notice must be filed with the state accepting a suspension of rights under the compensation act until the liability of the third party has been determined by a court of law. The employer is not required to pay any benefits if the employee receives a larger amount from the third party than would be due as compensation. If less is obtained against the third party, however, than would be due under the compensation act, the injured employee can obtain the difference from the employer. In case the injured employee accepts the benefits of workmen's compensation instead of proceeding against the third party, the employee is required to transfer his rights to his employer who can then bring an action against the third party. If the employer is insured, this right, in turn, is transferred to the insurance carrier.

11. *Workmen's compensation policies.*—The extended analysis of workmen's compensation legislation given above is necessary to any consideration of workmen's compensation insurance, because it is this legislation that defines the risk to be covered by the insurance contract. Workmen's compensation insurance, like employer's liability insurance, is an insurance of the employer's risk, for the carrier assumes the employer's obligation to pay compensation. It is more than this, however, since it is a direct guarantee

for the payment of compensation awards to an unlimited amount, that is, it affords complete coverage as far as the employee is concerned. Workmen's compensation and workmen's compensation insurance represent a premeditated and well-thought-out plan of dealing with the industrial injury problem, that does not create a new problem but carries with it its own solution.

When the workmen's compensation insurance contract is considered from this viewpoint, its differences from that of employer's liability insurance are few but fundamental. In 1918, a standard form of workmen's compensation policy was prepared by a group of underwriters, and it has since been approved for use in the majority of compensation states. This contract, like the employer's liability policy, provides that the carrier shall assume the obligation to furnish certain services to the employer, such as inspection of his plant for the purpose of making suggestions with reference to better safety conditions, and the investigation and settlement of claims. It shall further defend all suits brought against the employer and shall pay all costs of legal proceedings, all interest accruing after the entry of judgment, and the expenses incidental to the investigation, negotiation, and defense of claims.

The compensation coverage of the standard policy is determined by the workmen's compensation law of the state in which the policy is issued. The carrier obligates itself to pay compensation benefits, to

furnish medical, surgical, nursing, or hospital care, or funeral expenses, such as are due under the law, and to make these payments directly to the persons entitled to them. The policy includes a further coverage for negligence liability, because workers not included within the scope of the compensation act still maintain their rights under the law of negligence, and an employer may be subjected to claims from this source. Other features of the workmen's compensation policy are similar to the employer's liability insurance contract discussed elsewhere and need not be repeated here.

12. *Rate making.*—Workmen's compensation insurance rates represent one of the most significant insurance developments of modern times. The first premium rates were promulgated in 1910, with no statistical data available as a guide in their making, beyond experience under employer's liability and workmen's collective insurance, and some experience under European compensation laws. With this poor beginning, the carriers writing this business set about the collection of statistical data and their compilation and combination for the purpose of placing compensation insurance rates upon a scientific foundation. The developments of two decades in this field of rate making have surpassed results attained thus far in the entire history of fire insurance rating, and fairly may be said to parallel achievements in life insurance, the latter being looked upon as the one field in which the work of the insurance actuary could be

performed, and has been most successfully performed.

Coöperation in the making of rates has long been recognized as desirable, and stock companies writing this insurance have maintained the National Bureau of Casualty and Surety Underwriters and its predecessors for this purpose. This organization, and its predecessor under another name, originally made all compensation rates. Beginning in 1915, however, several independent state rating bureaus were established and they now operate in several states. In addition, the mutual carriers organized to carry the compensation risk, and established the National Association of Mutual Casualty Companies to perform the rate-making function for them. With the formation of these various rating bodies, it became apparent that coöperative action would be desirable to avoid duplication of efforts. The first coöperative conferences occurred in 1915, and, in 1922, the service of compensation rate making was placed in hands of the National Council of Workmen's Compensation Insurance, a federation of all rating boards and bureaus.

At a later date this council was reorganized, its name changed to the National Council on Compensation Insurance, and its membership changed to include insurance carriers instead of rating boards and bureaus. Today the National Council is the recognized rating organization for all states except those that have monopolized state funds and those whose

independent bureaus do not subscribe to any outside organization.

Along with the development of coöperation between carriers in the matter of rating, there has grown up a considerable amount of state supervision of the rating function. The special importance of state supervision is due to the social aspect of compensation insurance and such supervision is desirable as long as it is intelligently administered and is kept free of politics. Control over rating now is exercised in several states, and varies from prohibition of combination among the insurance carriers for rate-making purposes to the establishment of rates by the state itself.

The rating method involves the establishment of a manual rate for each industrial classification in each state and merit rates for certain risks. Manual rates are based on a classification of industries, including about seven hundred different items. The classification is based on the general similarity in hazard among various risks and this similarity tends to produce a reasonably stable loss experience for each class. The basic manual reflects experience of the various insurance carriers in nearly every compensation state, with particular emphasis, however, upon the experience of the particular state for which rates are quoted. In reducing this body of data to a common denominator, many difficulties were encountered, among which were variations in benefits and in accident frequency, and differences in the interpretation

and administration of laws. These obstacles were surmounted by reducing all experience to that of a particular state as a standard. The first standard so selected was known as Massachusetts Schedule Z; more recently the standard has been changed to the latest New York schedule, since the greatest single body of state experience is found in New York. The tendency is to utilize national experience only where the local experience is inadequate. Where sufficient local experience is available, not only the local rate level but also the pure premiums for individual classifications are based upon the state experience.

In determining a manual rate for a given classification in a given state, it is necessary, first, to find the pure premium, representative of loss experience in that state, and then to load this premium for expenses of carrying on the insurance business, the combined result representing the gross, or manual, rate. The pure premium for a given classification represents the loss per unit of insurance exposure, the unit being here, as in certain forms of liability insurance, $100 of payroll expenditure. The compensation manual quotes a rate for each classification in each state.

Two methods of merit rating are used because the classification of industries in the manual cannot take into consideration all the variations in hazard in different risks. Merit rating gives effect to these more detailed variations. Schedule rating, as one method is called, is used primarily in connection with

manufacturing risks, and attempts to measure the physical elements of hazard. The schedule used is known as the industrial compensation rating schedule and its principle is similar to that of the fire insurance rating schedule to be discussed in a later chapter. By its use, it is possible to inspect and list the more important physical hazard-producing qualities of the environment and to make charges or credits for those conditions that are below or above the standard.

Schedule rating can be used with success only in measuring physical hazards. It has been applied to manufacturing but not to mercantile and contracting risks. Other methods are necessary for measuring the effect upon loss experience of other factors, equally if not more important than the physical hazard, such as plant morale and the effect of education and organization for safety. This necessity has given rise to the system of "experience rating." The only means known today of measuring these more intangible factors is through the loss experience of a given plant. Experience rating, therefore, represents a modification of the manual rate to conform to the loss experience of the plant in question. It measures all factors which cause accidents. To be subject to experience rating, therefore, a plant must be large enough to produce fairly stable loss ratios, and must have had a period of operation under a compensation act.

The process of arriving at the final rate to be charged on a manufacturing risk may involve, there-

fore, the selection of the manual classification into which the plant falls, and the ascertainment of its manual rate. It may next be schedule rated, involving readjustment of its manual rate. Finally, it may be experience rated on the basis of its own experience, the last modification giving the rate that is to be charged for insurance on the risk. In many ways, the underwriting of compensation risks is so similar in character to that of liability insurance, that it requires no separate consideration.

13. *Advantages of workmen's compensation insurance.*—A decade of experience with the principle of workmen's compensation leaves no doubt as to its advantage over employer's liability as a solution of the industrial injury problem. The question of responsibility for injuries under this legislation has little bearing on the amount of compensation. The indemnity is no longer left to a court overloaded with other duties and lacking the technical equipment to deal with the economic issue. Specific compensation has been substituted, which measures the economic loss involved, and which, as time progresses, is becoming a more and more equitable measure of that loss. In its best form, the new system makes the payment of compensation certain and prompt, and has substituted for a cumbersome legal procedure an expert administrative body with the sole duty of carrying out the provisions of the law. Not least of the important advantages that have come from workmen's compensation has been the stimulus which it has furnished to

accident prevention. The close relationship that has been established between high accident frequency and severity and the cost of insurance is considered by most students of the subject to have been the great motive in an unusual growth of the safety movement since 1910.

14. *Workmen's compensation in Canada.*—In 1915, the Province of Ontario adopted a Workmen's Compensation Act which was at that time considered to be very advanced legislation. The act has proved satisfactory to employers and workmen and now all the provinces of Canada have similar legislation, with the exception of the provinces of Quebec and Prince Edward Island. Quebec has a Workmen's Compensation Commission, but individual liability continues. Prince Edward Island his made no change from the old law.

The following remarks are based on the Ontario act, but apply also to the other provinces that have followed the Ontario legislation. The scale of compensation differs in the provinces, and the Ontario act is said to stand first among the laws of the continent upon the question of liberality of benefits. At the same time, it is claimed that the cost to employers in Ontario is lower than elsewhere.

The principal features of the Ontario act are:

(a) Administration by a board instead of by the courts
(b) Collective liability instead of individual liability

(c) Extension of the right of compensation to all accidents arising out of, and in the course of, employment

The adjudication of claims and also the whole administration of the act are in the hands of a board. The services of lawyers are not required. No action at law can be brought to recover compensation, and the jurisdiction of the board is exclusive and cannot be interfered with by the courts. Any decision is final and cannot be questioned or reversed in any court. The board is not bound to follow strict legal precedent and bases its decisions upon what it believes to be the real merits and justice of each case.

The collective liability principle does not apply to certain companies, such as railways, telephone and telegraph companies, and other public utilities mentioned in the second schedule to the act, nor does it apply to any industry not listed in the first schedule to the act. The list of industries included in the first schedule, however, is very large and may be extended by application to the board by employer or employee. The industries mentioned in the second schedule are individually liable to pay compensation. Industries included in the first schedule are liable to contribute to the accident fund, and are not individually liable.

The industries in the first schedule are divided into groups or classes, and the rate, in any particular group, will ultimately depend upon the accident experience of the group. Assessments are made indi-

vidually upon the employers in much the same manner as assessments are made for municipal taxation. They are first levied provisionally upon an estimate of payroll given by the employer at the beginning of the year, or upon an estimate fixed by the board, and are adjusted after the close of the year upon the actual payroll. The total expenditure and the total income of the class for the year are arrived at as nearly as possible, and the rate is determined in accordance with the requirements, any surplus to the credit of a class being taken into consideration.

All industries in the same class do not necessarily bear the same rate. The classes are divided into groups and, even within the groups, the rates are different when this difference is shown to be justified. The experience is kept for the group and also for the class. Individual distinction between employers, even in the same line of industry, is made according to their accident experience by a system of merit rating, that is, where the accident cost falls short of the amount of the assessment by a stated percentage, a merit rating refund may be made. The average rate of assessment in Ontario over all years since the commencement of the act was $1.16 on every $100 of payroll.

15. *Cases covered by the law.*—All accidents arising out of, and in the course of, the employment are covered, except where the injury does not disable the workman for the period of at least seven days, and except where the injury is attributable solely

to the serious and willful conduct of the workman, unless the injury results in death or serious disablement. Certain industrial diseases are also covered. The word "workman" includes all employees, whether doing manual labor or other service, but does not include an "out worker," or an executive officer of a corporation. An employer or an executive officer, however, may carry himself on the payroll at a salary not exceeding $2,000 per annum, if he notifies the board that he desires to be included as a workman. Employers who are individually liable under the act (railways and other industries mentioned in Schedule 2 of the act) may be required to insure their workmen.

In an industry not covered by this law, action for negligence may still be brought in the courts, but, except as to farmers and domestic servants, some of the old common law rules are abrogated. Contributory negligence, for example, is no longer a defense to these actions, although it will be taken into account in assessing damages.

The Workmen's Compensation Act of Quebec adopts the compulsory insurance principle. A Workmen's Compensation Commission settles the amount of the award, but the act does not do away with any of the common law rights of action belonging to any person who cannot avail himself of the provisions of the act. A workman may be refused compensation by the Commission, but he still has his right to resort to the courts.

Every enterprise subject to the act must obtain

an insurance policy satisfactory to the Commission, and lodge a copy or a certificate with the Commission. The insurer may not cancel the insurance, except after ten days' notice to the Commission. The insured person must give notice of the accident to the employer in ten days, and application for compensation must be made to the Commission within twelve months. Awards are fixed by the Commission, which has the same powers as the superior court, and there is no appeal from the award. If an agreement is arrived at between the insurer and the employer, on the one hand, and the victim, on the other, the agreement must be transmitted to the Commission for approval.

REVIEW

State the leading principle of workmen's compensation.

Name the factors involved in the coverage of compensation laws.

Distinguish between elective and compulsory compensation laws.

What occupations are excluded from workmen's compensation?

Explain what injuries are covered by workmen's compensation and how the laws are applied.

State the "basis" theory of workmen's compensation and show how it is applied.

Discuss the compensation benefits from the standpoint of when they begin and when they end.

State the fundamental difference between compensation insurance and employer's liability insurance.

Discuss the advantages of workmen's compensation.

CHAPTER X

THE FIRE RISK AND FIRE PREVENTION

1. *Magnitude of the fire risk.*—Although the losses that occur annually from fire are tremendous, few people realize their magnitude. Nor is it generally realized that every article that enters into commerce, everything which we purchase for food, shelter, or clothing at many stages on its way to its final use has been covered by a fire insurance policy, and that the cost paid by the final user includes an element to cover this premium charge.

Property actually destroyed is only a part of the total loss due to fire. The cost of fire departments and other methods of fire prevention add heavily to the total expenditure.

Fire losses in the United States are far greater than in Europe. Various estimates have shown that in some cities of Europe fire losses average as low as 25 cents per capita per year, and the average annual fire loss for large European cities is placed in the neighborhood of 50 cents per capita. It is said that a $100,000 fire in a European city will occasion comment in papers throughout the Continent, whereas a one million dollar fire in the United

States may almost escape the notice of other than local newspapers.

2. *The causes of fire.*—For purposes of the present discussion, the causes of fire may be considered under three heads:

(a) Causes that start fires, or ignition hazards
(b) Causes that feed fires, or combustion hazards
(c) Causes that spread fires, or exposure and conflagration hazards

Ignition hazards may be of two kind—moral or physical. Moral hazard reveals itself in degrees varying from the ordinary carelessness which allows those means to accumulate whereby fires may be started, to the dishonesty of persons who start fires for the sake of reaping unjust rewards. Common physical hazards include such things as matches, defective heating appliances, and defective lighting devices.

Combustion hazards, the causes that feed fire, include the factors that, when a fire has begun, may cause it to grow larger and increase the amount of property damage which results. A burning match may cause the destruction of a small piece of paper, or the major portion of a large city. The study of combustion hazards is of value because it throws light upon the volume of loss that takes place when fires have once started. Such a study of combustion hazards includes a study of the material of which various types of buildings are constructed and of the occupancies, or goods included within buildings.

The exposure, or conflagration, hazard, as a cause

of fire loss, differs from the combustion hazard in the greater magnitude of the possible loss, and the greater area over which the hazard is found. A wooden building is spoken of as a certain type of combustion hazard, but a congested district in a large city built entirely of wooden buildings offers illustration of a conflagration hazard. When a distinction is made between combustion and conflagration hazards, it is found that the former usually refers to the fact that a particular building is exposed to fire damages because of a neighboring property, while the latter might be conceived of as made up of a vast number of such exposures.

3. *Control of the fire risk; fire prevention.*—To classify the causes of fire is to point to the means by which the fire risk may be reduced. Tersely stated, endeavors to lesson fire damage are directed: first, to preventing the occurrence of fire; second, to controlling fires when they have once started; and third, to avoiding their spread over large areas.

Fires attributable to the moral hazard present little opportunity for control. It may be possible to safeguard fire extinguishing and fire notification facilities against tampering by dishonest or criminally disposed persons. It is possible, also, to restrict in some degree the moral hazard assumed, by investigating the past record and present prosperity of the insured. It is well known that the moral hazard increases in all cases where property deteriorates in value, or where its income-earning power decreases or

is greatly reduced. Fire losses are observed to increase in times of business depression. The insurance company that, for example, will accept without investigation liability on summer hotels in pleasure resorts that have lost their popularity is subjecting itself almost certainly to moral hazard. Aside from the matter of selecting property with care and keeping careful record of fire losses of property owners and of their condition of prosperity, probably the only method of dealing with moral hazard is by means of legal penalties for intentional fire destruction.

Our laws now pretty generally include such penalties, but there may be a question as to their adequacy. When only carelessness is involved, public opinion in the United States is apparently not ripe for the imposition of legal penalties. In France, when one has a fire which damages his neighbor's property, he must pay the neighbor's loss. In a few cities in the United States, regulations provide that those who ignore a fire prevention order must pay the city for the service of the fire department if fire occurs on their premises. These few isolated instances, however, are far from indicating any general state of public opinion that will hold a man responsible in negligence for losses which occur through fire damage.

Suggested methods of preventing fire by control of common physical hazards include thoroughgoing community education as to the causes of fire and competent inspection service to locate possible hazards before fires have occurred. Interested authori-

ties are now making a praiseworthy attempt to make ignition hazards matters of common knowledge. Annual Fire Prevention Day in the United States is a real beginning. Fire prevention is being taught in many schools and fire drills made a matter of ordinary routine. Such information as is given to Boy Scouts regarding the care of fires may be a very small factor, but it is well worth while. Many fire insurance experts have suggested that the city firemen should perform a regular inspection service for the purpose of searching for possible fire hazards and this has been done in a few cities. When the firemen are sent to the various districts of a city, each fireman becomes well acquainted with the physical characteristics of his own district as well as of districts to which he might be called in case of a large fire. When a fire occurs, the firemen thus know at once the best means of approach to a given building and their efforts at fighting fires are much more effective than would otherwise be the case.

4. *The mode of controlling the combustion hazard.*—The combustion hazard is controlled, or fires are kept within the areas in which they originate: first, by proper building construction; second, by fire extinguishing facilities; and third, by fire notification facilities.

The first means involves the construction of buildings, in congested districts, of such material and in such ways that each building would confine a fire to its place of origin. This result is effected by the divi-

sion of large manufacturing and mercantile buildings into fire sections, which allow little possibility for a fire to travel from one section to another. The plan involves, furthermore, the protection of all lateral or horizontal openings, such as windows, stairways, and elevators, against the passage of fire. Many supposedly fireproof buildings in recent conflagrations in the United States have allowed a fire entering a given floor of a building to pass by means of windows, stairways, or other openings, from one floor to another of the building, or to traverse the space from one building to another and enter through such openings. Another important feature in the proper construction of buildings for control of the combustion hazard is the isolation of special occupancy hazards. Thus, the factory mutual fire insurance companies discovered that fires in textile mills started more often in certain departments than in others. When it was found that fires frequently originated in the carding room, owners sought to meet the situation by building factories in which the carding rooms were separated from the rest of the factory as a means of protection.

Fire extinguishing and fire notification facilities help to control the combustion hazard by bringing some agency on the job to fight the fire as quickly as possible. The great Chicago fire in the early seventies could easily have been prevented had there been someone at hand with the proper equipment when the lantern was first overturned. One of the

most effective fire extinguishing devices that has been perfected in modern times is the automatic sprinkler. It represents another contribution of the factory mutual fire insurance companies to the science of fire prevention. Its purpose is to apply water automatically as soon as the fire starts, and thus extinguish it before it has gained headway.

5. *Controlling the exposure and conflagration hazard.*—To control the exposure and conflagration hazards, means must be found to prevent the travel of fire from one building to another. In congested business districts, where exposure and conflagration hazards are supposedly greatest, this objective is attained by the construction of buildings of fire-resisting and fire-control qualities. Control of the conflagration hazard is possible by applying the principles of construction applicable to a single building to the entire group of buildings within a conflagration area. The area must be broken up into distinct parts in such a way that when a fire gets beyond control in a given building it cannot progress indefinitely, but eventually will reach a fire wall or a row of buildings lining a given street, that will resist attempts of the fire to break through.

Once a conflagration has started, under certain wind conditions, the residence district of a city furnishes quite as good a feeding ground as mercantile buildings. In many of our residence districts, the prevailing type of construction is still wood, and roofs are still largely constructed of shingles. A fire, once

beyond control, can spread indefinitely in a high wind.

6. *Agency of control.*—The control of the fire hazard by the means considered above becomes effective only when certain agencies in the community are assigned the task of carrying out these various operations. Such agencies include those to fight fire, those to establish standards, and those to make effective the standards so established. Standards may have behind them the force of the law, or the public opinion of the community, which recognizes and observes them as a matter of its own interest.

The first place in fire fighting belongs, of course, to the fire departments of our various municipalities. Fire departments in most cases are manned and their expenses paid by the municipality. Cities of considerable size usually have, in addition, a fire insurance patrol, or salvage corps, organized and supported by the fire insurance companies. The purpose of such patrols, in addition to extinguishing fires, is to preserve the interests of the insurance companies that have assumed liability on the property. These patrols often vie with the regular fire department in being the first to arrive at a fire. Fire marshals have been appointed by most of the states, their function being to study fires and report their causes, and assist generally in any means of educating the community in the work of fire prevention.

The fire insurance companies, in recent years, have done a great deal of work in fire prevention. Almost

every large fire insurance company maintains an inspection bureau and many of them have established large fire engineering departments. These departments study the causes of fire and methods of fire prevention, and hold themselves in readiness to advise property owners as to methods of construction and equipment of their buildings for the purpose of reducing fire losses. The factory mutual fire insurance companies, since their beginning, have always taken a leading part in fire prevention study. It is probably due largely to the incentive of their results that fire insurance companies, generally, have taken up the study of fire prevention.

The federal government has had its share in the work of fire prevention. The Bureau of Mines has studied the subject in connection with mining, and especially in the mining of coal. The United States Geological Survey has made a number of studies of methods of reducing fire loss through means of improving building construction.

Of the private associations engaged in this work, three in particular deserve mention. The National Board of Fire Underwriters was organized in 1866 and took up the work of fire prevention in 1873. This board is supported by contributions from various fire insurance companies. Among the most important of its activities in recent years has been the establishment of standards of construction. The National Board began the work of developing a National Building Code in 1896 and a National Electrical

Code in 1892. Its work at the present time is almost entirely of an educational, engineering, and public service character.

The National Fire Protection Association has been fostered by the National Board of Fire Underwriters. Its purposes are the formulation of standards, the publication and wide distribution of these standards, and the education of the public to use them. The National Fire Protection Association is the moving spirit, in a national sense, back of Fire Prevention Day, and promotes the creation of fire prevention offices in cities. It has advocated a law to fix individual responsibility for fires and has encouraged specific education in preventive methods.

The Underwriters' Laboratories, as the name indicates, is an organization for the purpose of testing various kinds of fire prevention devices. Its work is made effective by means of a label service. Every article tested and approved by the Underwriters' Laboratories receives its label, and of such great value is this label that manufacturers of fire prevention devices will go to great lengths in modifying their devices for the purpose of obtaining this approval.

REVIEW

Discuss losses occurring from fire and their importance.

What are the causes of fire?

How may fire risks be reduced?

Give in detail measures taken to control combustion hazards.

Describe the agencies which have been enlisted in the control of fire hazard. Give the functions of such agencies.

CHAPTER XI

FIRE INSURANCE POLICIES

1. *General principles.*—Since most men own at least a small amount of property that they use for their personal or business purposes, the demand for fire protection is almost universal. With many economic risks to which men are exposed, the fact of exposure to the risk does not in itself create an effective demand for insurance protection. In the case of the fire risk, however, the owners of property are well aware of their liability to loss and are in a position, because of their ownership, to pay the small premium required for protection. As a rule, men seek the protection of insurance against fire loss instead of waiting for the company to approach them with arguments to insure, as in the case of life insurance.

The characteristic features of the insurance contract noted in Chapter I are of especial importance in fire insurance. The personal character of the contract is fundamental, and is given full effect in the opinions rendered by courts of law. It is a contract between the insurance company and a particular person, and the obligation to pay indemnity, assumed by the company, is conditioned upon, and determined

by, the personal character of the insured. This condition evidently is necessary, because a given building presents various possibilities of levy upon the insurance fund, according as its owner is careful, careless, or dishonest.

The rule that the insurance contract is a contract for indemnity only, for the payment of the actual financial loss sustained, and no more, is rigidly adhered to in the law of fire insurance. The value of property is usually measurable within fairly definite limits; its cash market value is much more easily determined than is the value of a human life. Furthermore, there is the ever-present situation of those who would profit by the destruction of their properties, and by reimbursement for fictitious value from the insurance fund, those who desire to rid themselves of a bad bargain, and find a fire the easiest way out. The principles of indemnity, firmly fixed in fire insurance law, act as a protection to the insurance fund against unjust claims, and thus protect the rights of the whole body of policyholders.

2. *Standard policy contract.*—In the early development of fire indemnity in this country, fire insurance was local in character, and each company issued its own forms. As the business grew and companies extended the area over which they operated, their policies were filled with restrictions and limitations, some intended to protect the company against unjust claims, others, in some cases, apparently designed to avoid the very liability that the company was or-

ganized to carry. The situation became so bad, with the policy likely to be a complicated mass of provisions, the meaning of which not even court decisions could clarify, that a demand arose among the companies for a simpler contract offering protection to the just interests of both the company and the insured, drawn in the light of existing court rulings, and available for use by companies wherever operating. The National Board of Fire Underwriters undertook the development of such a policy in the late sixties, and in 1873 the State of Massachusetts established a form by law. New York followed in 1887, and since that time a large number of the states have adopted standard policy forms. In those states that have not taken legislative action, the general practice of the companies has been to use the standard form required in New York. The general adoption of a standard fire policy has given increased definiteness to the contractual relations existing between company and insured. The first standard policy was drawn up by a group of underwriters who had had extensive experience, after they had made a careful survey of court decisions relating to fire insurance. The half century that has since elapsed has resulted in the development of a further body of clarifying court decisions. In 1914, the National Convention of Insurance Commissioners recommended the adoption of a revised standard form, and modified policy forms have been enacted into law by several states since that time, the New York

Standard Fire Policy having been adopted in 1918.

3. *Coverage of the standard fire policy.*—There is, practically speaking, but one form of contract between the insurance carrier and the person seeking protection against fire damage, and, hence, the analysis of its provisions will reveal in the main the extent to which, and the circumstances under which, the fire risk is transferred from the individual to the group. Where the complete understanding between the parties is not outlined fully in the policy form, it is provided for by indorsement on the contract. The character of the protection which the insured receives under the fire insurance policy can be considered conveniently by answering the four questions—who, what, how much, and when; or, stated in more detail:

(a) Who is insurable against fire risk?
(b) What property is covered?
(c) For what amount is it covered?
(d) When it is covered, what is the term of the insurance?

These four questions will now be considered in detail from the standpoint of their interest to the business executive.

4. *Who is insurable?*—Only those who are exposed to the possibility of financial loss through the occurrence of unforeseen fire can purchase fire insurance. It has already been noted that rigid interpretation is applied to the principle of indemnity in fire insurance. It is this principle that lies at the basis of the legal doctrine of insurable interest. The term "an

insurable interest" implies here simply such an interest in, or relation to, the property in question that the person having this interest will suffer financial loss through the destruction of the property by fire. The question: Who has an insurable interest in fire insurance? is purely one of law. The standard fire policy states that the company "does insure . . . and legal representatives."

Who, then, has an insurable interest that will support a fire insurance policy? The owner's interest is obvious, and he may insure to the full market value of the property. There are other persons besides the owner of property, however, who may suffer loss as a result of fire. If a person has loaned money to the property owner and taken a mortgage on the property, he may suffer loss of his security, and it is very important that he be protected against this possible loss. Persons who act as custodians of goods and thereby incur liability for their safekeeping possess a right that enables them to insure property. Cases in point are warehouse men who have taken goods for safekeeping or for storage, or executors or administrators in charge of estates. Wherever legal liability against fire loss attaches to persons in charge of property, they possess the right to insure the property. Thus, common carriers transporting goods have such a right. As stated before, insurable interest is a matter of legal interpretation, but for most purposes it is sufficient to remember that any person who has any relationship to property

that will make him liable to financial loss through the destruction of the property by fire has the right to insure against this loss.

5. *Miscellaneous policy provisions as to the person insured.*—In order that the insurance contract shall be, as it purports, a means of indemnifying property owners against uncertain fire losses, it is necessary that the contract, in every way possible, shall seek to protect the company, that is, the whole body of policyholders within the company, against unusual losses generally classed under the head of "moral hazard." To accomplish this purpose, the insurance contract contains three provisions limiting or restricting the insured. The provisions in question read:

> This entire policy shall be void unless otherwise provided by agreement in writing added hereto, (a) if the interests of the insured be other than unconditional and sole ownership; or (b), if any change, other than by the death of an insured, takes place on the interest, title, or possession of the subject of insurance (except change of occupancy without increase of hazard); or (c), if this policy be assigned before a loss.

These restrictive clauses do not deny the right of the insured to modify his title to, or interest in, the property, or to assign his policy, but they recognize the right of the company to be notified of the facts, and to give its consent to them as a condition of the insurance. It is the personal character of the insurance contract, again, which is here in evidence. A change in title, or possession of an assignment, may

affect materially the interest of the insured in preserving the property from fire destruction, and may, therefore, completely alter the conditions upon which the company originally accepted the risk.

6. *The mortgagee.*—The situation of the mortgagee as a party to the insurance contract, or his special needs for protection against the loss of his security through fire damage, necessitates a special consideration of his case. The New York Standard Fire Policy now contains the following provision with reference to his interest:

> If loss or damage is made payable in whole or in part to a mortgagee not named herein as the insured, this policy may be cancelled as to such interest by giving to such mortgagee a ten days' written notice of cancellation. Upon failure of the insured to render proof of loss, such mortgagee shall, as if named as insured hereunder, but within sixty days after notice of such failure, render proof of loss and shall be subject to the provisions hereof as to appraisal and terms of payment and of bringing suit. On payment to such mortgagee of any sum for loss or damage hereunder, if this company shall claim that as to the mortgagor or owner no liability existed, it shall, to the extent of such payment, be subrogated to the mortgagee's right of recovery and claim upon the collateral of the mortgage debt, but without impairing the mortgagee's right to sue; or it may pay the mortgage debt and require an assignment thereof and of the mortgage. Other provisions relating to the interest and obligation of such mortgagee may be added hereto by agreement in writing.

There are several ways in which the mortgagee may insure his interest in property against fire damage. In the first place, he may take out a policy

in his own name and in which the mortgagor has no right. The disadvantage of this method to the mortgagee is the payment of extra premiums that would be unnecessary if the policy were issued to the mortgagor with an indorsement covering the interest of the mortgagee. The disadvantage to the company is the separation of the interests of mortgagor and mortgagee and the necessity, therefore, of watching much more carefully for possible moral hazard in connection with the risk.

Another way in which the mortgagee's interest may be protected against fire damage is by the assignment of the mortgagor's policy. This method ordinarily is not satisfactory to the mortgagee, because it places him entirely at the mercy of the property owner. The assignment, of course, must always be made with the consent of the insurance company in order to be valid, but, even after this consent has been obtained, it is possible for the mortgagor to violate his policy in various ways, and for the mortgagee to know nothing about this situation.

The loss payable clause offers a third means of insuring the mortgagee against fire damage. This clause is attached to the standard fire policy and reads —"Loss, if any, payable to the mortgagee as his interest may appear." The nature of the protection given to the mortgagee by this clause depends on the particular jurisdiction in which the insurance is written. In most states the clause is interpreted as having the same effect as the assignment of the

mortgagor's policy, and in such a case it is open to the same objections as an assignment. There are a few states, however, in which the clause has been interpreted as an independent contract between mortgagee and insurance company. In these cases nothing done by the mortgagor in any way affects the relationship existing between the insurance company and mortgagee, and the latter has a contract that, in the opinion of many insurance experts, gives him coverage without charge, which can be obtained by no other interest covered by a fire insurance policy.

Since the interest of the mortgagee is of such a nature that he requires special protection against fire damage, and since the customary methods of giving him this protection have been found defective in some respects, there has been developed a special mortgagee clause to be attached to the standard fire policy when the latter is issued to the property owner. This mortgagee clause provides that the insurance

> . . . as to the interest of the mortgagee (or trustee) only therein shall not be invalidated by any act or neglect of the mortgagor or owner of the risk within described property, or by any foreclosure or other proceedings, or notice of sale relating to the property, nor by any change in the title or ownership of the property, or by the occupation of the premises for purposes more hazardous than are permitted by the policy.

The company further agrees, in case it decides to cancel the insurance policy, to give the mortgagee

ten days' notice of cancellation, just twice the period given to the mortgagor. In return for this special protection, the mortgagee must assume certain obligations. He must agree to pay any premium which the mortgagor or owner has neglected to pay, when such neglect has been brought to his notice and demand has been made upon him. He must notify the insurance company of any change of ownership, or occupancy, or increase in hazard which has come to his knowledge, and, if requested by the company, shall agree to pay any extra premiums for such increased hazard.

In the case of some large investors such as insurance and trust companies, not even the mortgagee clause satisfies their requirements for protection. Very often, special contracts known as coverages or agreements are drawn up between such concerns, whereby the insurance company agrees to furnish the protection needed by them on property on which they lend money.

The question: Who is insurable? is thus one that is not covered in detail by the policy contract. It is fundamentally a matter of the law of insurance interest and, if the interest that is to be protected by the policy is other than that of the owner of the property, the complete details of the relationship between the parties may be outlined in supplementary agreements or indorsements attached to the policy.

7. *Property covered and losses covered.*—As the intent of the policy contract is to replace unneces-

sary and unforeseen losses that fall upon individual property owners, the policy should be so drawn as to grant this coverage and yet protect the insurance fund from unjust and arbitrary claims not comprehended within the original purpose of distributing unavoidable losses. With reference to the description of the property, the first page of the standard fire policy states:

> The Fire Insurance Company does insure the following described property while located and contained as described herein, or pro-rata for five days at proper place to which any of the property shall necessarily be removed for preservation from fire, but not elsewhere.

Following this statement is a blank space on the policy in which can be inserted a description of the property. Properties insured vary so widely that the policy could not possibly contain a standard form of description applicable to all cases. It is possible, however, to a reasonable extent, to standardize descriptions for particular kinds of property. There is a class likeness in dwellings, in mercantile establishments, and in manufacturing establishments to be insured, which makes it possible for the underwriters' associations in various sections of the country to issue standard forms for each of these kinds of property, which they recommend universally for use. Such forms have generally been carefully worded and are not subject to misinterpretation. When a description of the property is drawn up by a broker, or by some person who is unfamiliar with insurance prac-

tice, there is danger that ambiguous language will be construed against the company.

The contract is intended to cover the insured's property only while located in a particular place. This wording is justified and defended by the company on the ground that the location of the property has a great deal to do with the risk of fire loss and that, once a premium has been agreed upon, that premium is supposed to cover the risk of loss to property while in given situations. In some instances, courts have construed this provision liberally on the ground that the intent of the contract is to protect the property in the ordinary use to which it should be put, and have, therefore, held the insurance company liable for fire loss even in cases where property had been removed from its original location. It is the part of caution, however, for the insured to assume that the provision with reference to location in a particular place will be construed rigidly according to the wording of the contract. The contract does provide, however, as indicated above, that the insured may, in the case of fire, remove his property from its original location and still keep the protection of his insurance for a period of five days. This provision is quite as necessary for the protection of the insurance company as for that of the policyholder.

8. *Restrictions on property covered.*—The policy contract names classes of limitations with reference to property covered. Certain items of property are indicated as being non-insurable. Other items are

insurable only by special agreement, or by specific enumeration in the policy. With reference to the first, or non-insurable items, the contract states: "This policy shall not cover accounts, bills, currency, evidences of debt, money, notes, or securities." The difficulty of proving the loss in such cases requires no comment. If these items were insurable, the temptation to have losses would be great, and losses attributable to moral hazard would increase in proportion. Some of these items, such as accounts, or evidences of debt, have no insurable value. They represent a certain legal right to property, a right which exists even though the evidence may be destroyed.

Property that is insurable under the policy only by special agreement is covered by the following statement:

Unless otherwise provided by agreement in writing added hereto, this company shall not be liable for loss or damage occurring (a) while mechanics are employed in building, altering or repairing the described premises beyond a period of fifteen days; or (b) while illuminating gas or vapor is generated on the described premises; or while (any usage or custom to the contrary notwithstanding) there is kept, used, or allowed, on the described premises fireworks, street fire, phosphorus, explosives, benzine, gasoline, naphtha, or any other petroleum product of greater inflammability than kerosene oil, gunpowder exceeding twenty-five pounds, or kerosene oil, exceeding five barrels; or (c) if the subject of insurance be a manufacturing establishment while operated in whole or in part between the hours of 10 p.m. and 5 a.m., or while it ceases to be operated beyond a period of ten days; or (d) while a described building,

whether intended for occupancy by owner or tenant, is vacant or unoccupied beyond a period of ten days. Unless otherwise provided by agreement in writing added hereto, this company shall not be liable for any loss or damage to any property hereunder while encumbered by a chattel mortgage, and during the time of such incumbrance the company shall be liable only for loss or damage to any other property secured hereunder.

Each of the conditions here specified under the property is more hazardous than is contemplated in the usual type of risk. The company may be quite willing to grant coverage under any or all of these conditions, and, as a matter of fact, does do so; but it is necessary, when the insured wishes such coverage, that the policy contain the proper indorsement. Such indorsement is obtained by riders attached to the policy.

9. *Losses covered.*—The losses for which the standard fire policy promises to reimburse the insured are very carefully stated. It is possible, of course, for unscrupulous property owners to obtain insurance against fire, and then to burn the property for the purpose of collecting the indemnity. The policy contract meets this need for careful protection of the interests of all policyholders by a direct statement of the risk assumed by the company, supplemented by a list of risks which will not be assumed, or which will be assumed only on the basis of a special agreement.

The policy states, in the first place, that the insurance company insures the given person against "all

direct loss or damage by fire." The question is—What constitutes a direct loss, and what constitutes a loss or damage by fire? Direct loss, as interpreted by courts, means any loss because of which there is a direct chain of events between fire as the originating agency and ultimate property damage. It is not necessary that there be actual destruction of insured property in order that the loss may come under the terms of the contract. There is, for instance, a case on record in which fire occurring in a waste-basket burned the insulation from electric wires, thereby causing a short circuit and eventually doing serious damage to electrical machinery. It was held by the court, in this instance, that there was, within the terms of the contract, a direct loss by fire, and the insurance company was held liable. There are cases in which fire may occur and damage result to insured property through the negligence of some person or agency. For instance, a railroad locomotive may start a fire that eventually destroys insured property and, under the law, the railroad company may be liable to the property owner. If, however, the property has been insured, the owner may claim reimbursement directly from the insurance company. The latter will be required to pay since this is a direct fire loss. The insurance company, however, will obtain from the insured subrogation of his rights against the railroad company, and then seek reimbursement from the latter.

The phrase, "loss or damage by fire," has been

interpreted by courts of law as including any losses that are a result of the actual fire. It will include, for instance, damage caused by water in case water has been used in extinguishing fire. If a wall is caused to fall by the burning of a building and injures property on an adjoining location, this loss would again be considered as a loss or damage by fire within the meaning of the contract. Court interpretations have emphasized the fact, however, that there must have been an actual fire in order to hold the company liable. Heat of too low a degree to cause ignition may produce damage, but the insurance company will not be liable.

10. *Risks specifically excluded.*—Not only does the standard fire policy contemplate the exclusion of all indirect losses from the terms of its protection, but also it specifically excludes certain risks. These exclusions are comprehended within the following clauses:

This company shall not be liable for loss or damage caused directly or indirectly by invasion, insurrection, riot, civil war, or commotion of military or usurped power; or by order of any civil authority; or by theft; or by neglect of the insured to use all reasonable means to save and preserve the property at and after a fire, or when the property is endangered by fire in neighboring premises.

Unless otherwise provided by agreement in writing added hereto, this company shall not be liable for loss or damage occurring by explosion or lightning unless fire ensue, and, in that event, for loss or damage by fire only.

If a building or any material part thereof fall except

as the result of fire, all insurance by this policy on such building or its contents shall immediately cease.

These quotations show that the terms of the standard fire policy do not cover even all direct loss. It is assumed, probably with good reason, that losses due to invasion, insurrection, and riot can, if sustained, be collected from civil authority; and, regardless of this possibility, the terms of the contract presume a state of law and order, and the premium for insurance is calculated upon this presumption. If, therefore, the insurance company assumes such losses, it would be placing a burden upon the insurance fund not contemplated in its original creation. The need for excluding losses resulting from the neglect of the insured to give proper care to property after a fire is so evident as to require no comment. If the company wished, however, to deny liability for losses supposed to be of this character, the burden of proof would be on the company, and it might be very difficult to prove neglect. Losses by explosion or lightning, when accompanied by fire losses, are difficult to separate from the latter, and it is easy to see that the company can get into serious difficulty in attempting to exclude them. They may be directly assumed by the company, however, by special agreement for an additional premium. The exception made in the case of a falling building is based on the assumption that the insurance contract is intended to cover property in usable condition and not a mass of ruins.

11. *Measure of the amount of fire loss.*—The policy states that the company is liable for direct loss or damage by fire, but what shall be the basis upon which the amount of direct loss is determined? The policy states this matter with some care in the following words:

> . . . does insure . . . and legal representatives, to the extent of the actual cash value (ascertained with proper deduction for depreciation) of the property at the time of loss or damage, but not exceeding the amount which it would cost to repair or replace the same with material of like kind and quality within a reasonable time after such loss or damage, without allowance for any increased cost of repair or reconstruction under any ordinance or law regulating construction or repair, and without compensation for loss resulting from interruption of business or manufacture.

The insurance policy thus provides that the settlement of loss shall be based essentially on the market value of the property, ascertained at the time of the fire. To do otherwise would be to depart at once from the important principle of indemnity. To be sure, it is not an easy matter to determine the market value of a piece of property. The settlement is ordinarily made between the insured and the company with this as the guiding principle. If the parties are unable to come to an agreement, it may be necessary to seek another method of settlement, but the principle upon which the final adjustment of loss will be made is as stated. In accordance with this provision, it is quite possible that the company might

pay, in case of a total loss, less than the value of the property when insured. If, for instance, a property valued at $10,000 at the time of issue of the policy should deteriorate until at the time of loss it was worth only three-quarters of that sum, the maximum amount which could be obtained from the insurance company would be the market value, or $7,500. This would be true if settlement is in accordance with the terms of the standard fire policy, and with the intention of its framers. Some states, however, have passed valued policy laws requiring that in case of total loss the insurance company must pay the full amount stated in the policy without regard to the value of the property.

12. *Protection against indirect losses from fire.*— It is the intention of the standard fire policy to protect the insured against direct loss from fire only, and, by express statements in the contract, the company denies liability for loss resulting from interruption of business or manufacture. If such indirect losses are to be covered, it must be by means of a special indorsement on the policy, or some similar method. The desirability of offering protection against indirect fire losses seems to be better appreciated than formerly by many insurance companies. There has been a broad development of such forms of coverage as use and occupancy insurance, rent insurance, leasehold insurance, commission and profit insurance, and sprinkler leakage insurance. Rent insurance reimburses a landlord for loss of rent occur-

ring as a result of cancellation of leases through fire. Leasehold insurance guarantees to the holder of valuable leases indemnity against the loss of the profit that results from the cancellation of leases because of fire. Sprinkler leakage insurance protects against losses due to accidental opening of sprinklers when such is not in any way connected with fire. If an automatic sprinkler opens as a result of fire, and water damage ensues, the standard fire policy covers the loss. But sprinkler systems are often so sensitively adjusted that they may open and cause considerable water damage even though no fire has occurred. This loss would not be covered by the ordinary terms of the policy, and protection can be furnished against it only by the indorsement of a sprinkler leakage form on the policy, or by a separate sprinkler leakage contract.

13. *Use and occupancy insurance.*—When a fire occurs, the liability of the insurance company is limited to the replacement value of the property damaged. It is frequently impossible, however, to recommence the operation of the business immediately after the fire. Time may be required to repair machinery, to restore the building, and to obtain new stock. During that period, certain expenses of the business would continue. Regardless of operation, salaries for employees paid on an annual basis, taxes, advertising purchased on a contract basis, minimum charges for telephone and light, and other charges would have to be paid. Furthermore, there would be

a loss of profit during the suspension of operations. Protection against loss of fixed or continuing expenses, as well as loss of profits due to the suspension of business, can be provided by use and occupancy insurance.

To meet the many conditions encountered, the insurance companies issue various forms of use and occupancy insurance. The choice of form depends upon whether the operations and earnings are constant throughout the year, or whether they fluctuate, as, for example, by months or by seasons. The following forms are available:

(a) Mercantile, per diem
(b) Manufacturing, per diem
(c) Mercantile, weekly or monthly
(d) Manufacturing, weekly or monthly
(e) Mercantile, seasonal
(f) Manufacturing, seasonal

14. *Profits insurance.*—Although the insured is indemnified for the loss of stock by means of a fire insurance policy, and use and occupancy insurance protects against continuing expenses and the loss of profits which might have been earned on goods produced in the future, neither of these forms of insurance provides coverage against the loss of profits on goods already produced. To provide such protection is the purpose of profits insurance, which is another measure designed to limit the losses suffered by reason of fires.

By means of profits insurance, it is possible for

the manufacturer, the wholesaler, and the commission merchant to protect themselves against the risk of losing profits which they have already earned on goods manufactured but not delivered. The manufacturer may have manufactured goods that are awaiting shipment; the wholesaler and the commission merchant may be holding goods sold but not yet delivered. In each of these instances, the damage or destruction of the goods by fire would result in a loss of profits. If the risk is covered by profits insurance, however, the insured will be indemnified for his loss.

REVIEW

Trace the development of the standard policy contract in fire insurance.

State what determines the coverage of the insured.

How does a fire insurance policy protect the insurance company against any form of fraud?

Explain how the interests of a mortgagee may be covered under a fire insurance policy.

What property is covered by the insurance contract, and what restrictions are set forth in it?

Name the losses which are covered in a fire insurance contract and the risks which are excluded from it.

Explain how the amount of fire loss is determined.

What coverages are provided by use and occupancy insurance and profits insurance?

CHAPTER XII

FIRE INSURANCE POLICIES (*Continued*)

1. *Amount of the insurance.*—The amount of the insurance named in the standard fire policy represents the maximum that the company can be called upon to assume in any event. The policy states that the company insures "to an amount not exceeding . . . dollars." When a loss occurs, the company pays the actual cash market value of the property destroyed, subject to the maximum amount named in the policy.

Fire insurance must always guard against the possible existence of moral hazard, that is, the possibility that some dishonest person will use the insurance contract, not as a means of protection against uncertain fire losses, but as a means of gain. If companies did not have means sufficient for guarding against such a possibility, a dishonest property owner might obtain insurance in various companies, the total amount of which would far exceed the value of the property insured. In the case of loss, such an unscrupulous owner might attempt to collect insurance from each of the companies. A case of this kind is prevented in part by policy provisions such as:

(a) That the policy shall be void, if the insured has concealed or misrepresented any material facts or circumstances having a direct bearing on the insurance

(b) That unless the insured shall provide otherwise by agreement in writing, the company shall not be liable for loss occurring "while the insured shall have any other contract of insurance, whether valid or not, on property covered in whole or in part by this policy"

It is not the intention of the company to prevent the insured from obtaining other insurance on his property, because there are many cases in which a single company is unwilling to furnish the entire amount of protection necessary on given items of property. The purpose of the "other insurance clause" is to guarantee that the company shall have knowledge of other policies, and shall assume its liability in view of complete knowledge of all the facts surrounding the insurance of the property in question.

2. *Over-insurance.*—The fire insurance business has found it necessary to devise methods to meet the tendency on the part of property owners in certain localities to over-insure and the opposite tendency in other localities to under-insure. The standard fire policy is silent in this matter of over- or under-insurance, and where either situation arises it must be handled by means of indorsement on the contract. Over-insurance is frequently found in communities where fire losses are likely to be total losses, as in

rural communities, or in villages where building construction is largely of wood, and where fire protection facilities are very inadequate. To carry out the purposes of the fire insurance contract to distribute uncertain losses, and particularly to keep these uncertain losses at their lowest limit, it is sometimes desirable to furnish the insured with an incentive to keep a careful watch over his property. One effective means of bringing about this result is to limit the maximum liability of the insurance fund to a stated proportion of the cash value of the property. If the owner understands that on a property worth $10,000 he can under no circumstances receive more than three-quarters of this amount from his insurance policy, he will naturally be much more careful in preserving his property against possible destruction by fire. Because the indorsement on the insurance contract will reduce any eventual loss payment, the indorsement of such a clause, known as the three-fourths value clause, will permit the insurance to be written at a lower premium than would otherwise be the case.

Another clause sometimes indorsed on the fire insurance policy is known as the three-fourths loss clause. It limits the liability of the company to three-fourths of any loss that takes place. It is, therefore, much stricter than the three-fourths value clause, because the latter does not become effective until the amount of the loss has equaled three-fourths of the value of the property. The three-fourths loss

clause, however, is effective with respect to every loss, whether partial or total.

3. *Under-insurance.*—The contrary tendency to insure property for much less than its total value is found generally in large cities, where fire protection is unusually well developed, and where it is well known by policyholders that most insurance losses are partial. The difficulty originally lay in the fact that the fire insurance premium was always quoted at so much per hundred dollars of insurance without regard to the amount of insurance carried on property. Whether the property owner or the insured carried much insurance or little, he paid the same rate per hundred dollars insurance. The situation might be illustrated as follows. Two persons each own property valued at $5,000. The one insures for full value, the other for 40 per cent, or $2,000. At the premium rate of $1 per hundred dollars insurance, the one pays $50 insurance premium, the other $20. Now, in case fire causes a loss of any amount on either property up to $2,000, the property owner who took insurance for only part of his value receives the same protection for $20 that the other man receives for a much larger sum. Of course, if the loss were above $2,000, the second person would be fully protected and the first would not be. That factor, however, does not obviate the patent fact that the one pays a much higher rate for his protection than the other.

There are two methods of meeting this situation.

In the first place, every property owner can be allowed to pay a flat rate, or premium per unit of insurance, and the company can grade losses in accordance with the relative amount of insurance carried. On the other hand, it is possible to grade the rate of premiums in accordance with the amount of insurance that is carried, and to pay all losses in full. Either method meets the requirements of the situation.

The first solution suggested is that of the well-known co-insurance clause. This clause provides that the company shall pay any loss in the proportion that the insurance carried bears to the insurance that the company requires to be carried on the property. To illustrate, in the case of the $5,000 property referred to above, let us suppose that the insurance company requires insurance to the extent of 80 per cent of the value. The amount required by the company, as prerequisite to the payment of all losses in full, would therefore be $4,000. The property owner, then, who carried but $2,000 insurance on this property would have any loss paid under the co-insurance clause in the proportion that $2,000 bears to $4,000, or the company would be liable for one-half of any loss, and the property owner would be co-insurer to the extent of the other 50 per cent.

The difficulty that has always been found with the co-insurance clause lies in the fact that many policyholders fail to understand it. They object to having their losses scaled down even though they may under-

stand, as most of them probably do not, that they have not paid a premium adequate to the protection they would receive in case their partial losses were paid in full.

Table 10 will illustrate the adjustment of losses in various cases if the 80 per cent co-insurance clause is attached to the policy.

Since schedule rating has come so thoroughly into vogue in the rating of such risks as mercantile and manufacturing buildings, it has been found more desirable in these cases to meet the tendency to underinsure by grading rates, and paying all partial losses in full.

TABLE 10

ADJUSTMENT OF FIRE INSURANCE LOSSES

POLICIES WITH 80 PER CENT CO-INSURANCE CLAUSE

Value of Property	Insurance Carried	Loss Due to Fire	Required Insurance	Insufficient Insurance	Amount Paid by Insurance Company
$100,000	$ 20,000	$ 15,000	$ 80,000	$ 60,000	$ 3,750
200,000	80,000	60,000	160,000	80,000	30,000
250,000	200,000	100,000	200,000	.....	100,000
500,000	100,000	500,000	400,000	300,000	100,000

One well-known rating schedule uses the following rule. If the rate to be charged for insuring the building to 50 per cent of its value is $1 per $100 insurance, the owner who insures to 80 per cent of value will receive a rate of 85 cents per hundred dollars insurance. On the other hand, the owner who insures for only 30 per cent of value will pay a rate of $1.20 per unit of insurance. This seems,

in general, to be a much more satisfactory method of meeting the situation of under-insurance than that of the co-insurance clause, for the reason that the adjustment in the case of graded rates is made prior to the time the policy is issued. The premium is a part of the consideration for the contract, and supposedly the insured will know the premium charged before he has accepted the contract; whereas, in the case of the co-insurance clause, the insured may have his first knowledge of the character of his protection when the loss has occurred, and the insurance company attempts to effect a settlement. It is still necessary, however, to use the co-insurance clause in those cases where properties have not yet been rated by schedule.

4. *Term of the insurance.*—Fire insurance contracts are usually written for terms of one year, three years, or five years. There are in existence a few so-called perpetual policies, but their number is so small as to be relatively insignificant. The policy contract provides that the insurance shall run from noon on a given day to noon of the day one year, three, or five years thereafter. The word "noon" is further defined in the contract to mean standard time at the place of loss or damage. This interpretative provision was included in the revised New York form since a court, in at least one instance, was called upon to determine whether noon as stated in the contract meant noon standard time or noon sun time.

The short term of the fire insurance policy is a

natural outgrowth of the conditions surrounding it. Property changes in character from time to time, and the risk of fire loss can vary to a great extent in a short interval. It, therefore, becomes desirable for the insurance company to readjust its contract to these changing conditions. The reissue, or renewal, of a fire insurance policy necessitates a restatement of the description of the property insured, and this restatement must be in accordance with those changes that may have taken place.

5. *Renewals.*—A fire insurance policy may be renewed either by a renewal receipt, or by the issue of a new policy. The former provides that in consideration of a new premium the policy is renewed and continues in force for a new term as stated. The renewal receipt is supposed to continue the original policy under its original term. Questions of interpretation have arisen under such a plan, however, and misunderstandings between company and insured have occurred. For instance, it has been held by a court of law that verbal understandings valid under the original policy were not continued under the renewal contract. The possibilities of misunderstanding incline the company to prefer renewal by the issue of a new policy. The formality of issuing a new policy is almost necessarily associated with greater care in observing the terms and provisions of the contract, and misunderstandings, therefore, are less likely to occur.

6. *Cancellation.*—The fire contract is subject to

termination by either party. If it were possible for a dishonest property owner to secure an insurance policy, and if it were then impossible for the insurance company to terminate the contract when it found out the character of the insured, there unquestionably would be a large increase in fire losses due to moral hazard. The insurance premiums paid by honest property owners, as a result, would increase. This situation makes it desirable that the standard fire policy contain a clause explaining carefully the conditions under which cancellation may take place. The clause in question provides that the policy may be cancelled at any time at the request of the insured. The insurance company promises thereupon, upon demand and surrender of the policy, to refund the excess of premium paid above the regular rate for the period already expired.

When the company desires to cancel, the clause requires that it shall give to the insured five days' written notice "with or without tender of the excess of the paid premium above the pro-rata premium for the expired time, which excess if not tendered shall be refunded on demand." Notice of cancellation shall state that this excess premium (if not tendered) will be refunded on demand. If the insured requests cancellation of the policy, the premium returned is a smaller amount than in a case where the company cancels. This procedure is proper on the assumption that the person who desires to terminate the contract shall pay the cost of

writing it originally. If the insured cancels, therefore, the returned premium is the difference between the so-called short rate and the total premium for the year, whereas, if the company cancels it must return a pro-rata amount.

There is one other consideration involved here, namely, that if the pro-rata premium were returned to the insured in the event that he cancelled, it would be possible for property owners to obtain insurance contracts for the longer-term period at the reduced rate at which such contracts are issued. They might then cancel at the end of a short period and obtain the benefits of a much lower rate than would be possible in case they asked originally for a short-term contract.

7. *Loss settlements.*—The determination of the liability of the insurance fund to a policyholder when he has suffered a loss measures the success with which the intent of the policy contract has been carried out. If the final settlement is made in accordance with the provisions of the contract previously stated, and the insured receives the cash market value of the property destroyed or damaged, the intent of the contract is realized. If, however, the insured finds it possible to claim and receive payment on destroyed property far in excess of its market value, or if, on the other hand, the company is enabled to effect a settlement below the actual market value, the intent of the contract is not realized. In view of these considerations, it is to be expected that the

policy will outline in careful detail the procedure to be followed after a loss occurs, and the method of arriving at a final settlement.

The clauses governing the procedure to be followed by the insured after a loss cover various points:

(a) The insured is required to give to the company immediate notice in writing of any loss or damage that has occurred, in order that the company may be placed at once in possession of the facts of possible loss, and be in a position to take the steps necessary to preserve its interests.

(b) The insured is further required to protect the property from further damage, to separate damaged and undamaged personal property, and to put it in the best possible order.

(c) The insured must make a complete inventory of the damaged, undamaged, and destroyed property, stating the quantity and cost on each article and the amount claimed thereon.

(d) Within sixty days after the fire, the insured is required to file with the company a signed and sworn statement of his loss, containing information as to the time and origin of the fire, the interest of the insured and of all other persons in the property, the cash value of each item insured, and the loss or damage sustained on each, all incumbrances thereon, all other contracts of insurance covering the property, whether such contracts be valid or not, any changes in title, use, possession, location, or exposures, that may have taken place since the policy was issued. He must also render a statement as to all persons who occupied any portion, or portions, of the insured property at the time of the fire, and the use to which

such property was put. The insured must also furnish the company with copies of all descriptions or schedules in all policies written on the property, and, if required, plans and specifications of buildings, fixtures, or machinery destroyed or damaged.

The company, however, may be unwilling to accept the statement of the insured, even though a sworn statement, as to the various items of information given above, is made. The policy, therefore, further requires:

(e) That the insured as often as may be reasonably required shall exhibit to any person designated by this company all that remains of any property herein described and submit to an examination under oath by any person named by this company, and subscribe the same; and as often as may be reasonably required, shall produce for examination all books of accounts, bills, invoices, and other vouchers or certified copies thereof if originals be lost, at such reasonable time and place as may be designated by this company or its representatives, and shall permit extracts and copies thereof to be made.

8. *Adjustment of losses.*—The policy contract presumes that when the insured has furnished the required proof of loss to the company, the two parties will come to an agreement as to the liability of the latter. The business of adjustment was originally in the hands of the company, or its representative, but loss adjustment in recent times has become a matter requiring technical training, and a special class

of persons, known as loss adjusters, who do this work, has grown up. Special loss adjusters, or adjustment bureaus, are now found in many of the larger communities. They may be called upon by the insured to act as his agent in the settlement of losses, and they are also employed by the companies in the same capacity. Such adjustment agencies are particularly advantageous when several insurance companies are involved in the settlement of a single loss. They are probably in a position to settle losses more cheaply, and more effectively, than would be the case if each company had a separate representative to act for it. The single adjuster, or bureau, in charge of the settlement of a loss for several companies will have in his possession the policies, and indorsements, from all companies, and will be able to effect an adjustment that affords substantial justice to all parties concerned.

Where the representative of the company, and the insured, are unable to agree as to the amount of the loss or damage, the policy provides that:

> Each shall on the written demand of either select a competent and disinterested appraiser. The appraisers shall first select a competent and disinterested umpire; and failing for fifteen days to agree upon such umpire, then upon request of the insured, or this company, such umpire shall be selected by a judge of a court of record in the state in which the property insured is located. The appraisers shall then appraise the loss and damage stating, separately, sound value and loss or damage to each item; and failing to agree, shall submit their differences only, to the umpire. An award in writing, so itemized, of any

two when filed with this company shall determine the amount of sound value, and loss or damage. Each appraiser shall be paid by the party selecting him, and the expenses of appraisal and umpire shall be paid by the parties equally.

The amount of the company's liability having been determined by agreement, or by an appraisal award, the company, if it accepts the liability, may then pay the loss. An agreement as to the amount of the loss does not necessarily establish the company's liability, since the company, on investigation, may find that certain provisions of the policy contract have not been lived up to by the insured, or the policy may have been violated in some way. If, however, the company admits liability, it ordinarily pays the amount of the loss in cash. It is not required, however, to follow this method of payment but, at its option, may take all or any part of the articles at the agreed or appraised value, or it may repair the place, or rebuild the property lost or damaged with other buildings, etc., of like kind and quality. This option may at times be of value to the company as a means of avoiding what seems in its opinion to be an excessive loss payment. However, a company seldom exercises the option because of the requirement that repaired, rebuilt, or replaced property shall be of like kind and quality. In one case in which a company availed itself of the option to rebuild, the owner contended successfully, when the property had been completed, that the rebuilt structure was not of like kind and quality with the orig-

inal, and, therefore, the company was required by the court to pay the loss in cash. Since the rebuilt property, however, stood on ground owned by the insured, it also became his property, and thus, in effect, he obtained a double payment of his loss. A company naturally desires to avoid any such complication as this, and the clause usually inserted in an insurance policy reads:

> The amount of the loss having been agreed upon between insured and company, the company is required by the terms of the policy to pay this amount within sixty days after proof of loss, as herein provided, is received by this company, and ascertainment of the loss or damage is made either by agreement between the insured and this company expressed in writing, or by the filing with this company of an award as herein provided.

The fire insurance company may be called upon to pay losses from time to time for which third parties are ultimately responsible; or, as in the case of mortgagees, may pay a loss of security where the mortgagee possesses the right eventually of calling upon the mortgagor for the repayment of his loan. In the case of any such payment by the company, the insured is required to assign to it his right of recovery against any party toward whom such right may exist. Thus, in the case of a fire caused by the negligence of a railroad, the insurance company may be called upon in the first instance to pay the fire loss to the owner of insured property, but this owner under the law may have a right to sue the railway

corporation for damages, and on receiving payment from the insurance company must, therefore, transfer to the latter his right of recovery against the railroad. An important section of the mortgagee clause, and, indeed, of the provision in the standard fire policy covering mortgagee interests, requires subrogation wherever the company pays to the mortgagee any sum for loss or damage, and claims that, as to the mortgagor or owner of the property, it has no liability.

9. *Loss settlements and contribution.*—The policy contract contains a clause outlining the method of settling losses in those cases in which more than one policy has been written to cover a given property. This clause provides that the company "shall not be liable for a greater proportion of any loss or damage than the amount hereby insured shall bear to the whole insurance covering the property, whether valid or not and whether collectible or not." The ordinary application of this provision is very simple. If a $10,000 property is covered by two policies, one for $5,000, and one for $3,000, any loss will be paid by the companies in the respective proportion $\frac{5}{8}$ and $\frac{3}{8}$. The requirements that this method of settlement shall be effective whether policies are valid or not, or whether the insurance is collectible or not, protects the company against the possibility that the insured might take out sufficient insurance in a strong company to cover ordinary losses, and then purchase a cheaper policy from some company whose ability

to pay losses was questionable, on the chance that he might in this way obtain payment for the maximum possible loss.

10. *Contribution and the problem of concurrent policies.*—In cases such as that cited in the previous paragraph, the problem of adjusting losses between several insurance companies presents no difficulties. If, however, the various policies do not agree completely in their terms, the matter of applying the provisions of the contribution clause may present some of the most difficult problems of loss adjustment. If, for instance, one policy covered a building, and a second policy the building and its contents, some means must be found at once by which to determine the amount of insurance that each is to contribute toward the loss on the building. Again, one policy may contain a co-insurance clause, a second policy, none; or one policy may have a mortgagee clause indorsed upon it, and another be without this clause. There is no single rule or regulation that will apply to the multitude of cases of this sort that may arise. Insurance adjusters in various localities have established rules that they apply wherever possible, and that seem to work with substantial justice in most instances. Some complicated cases have been taken to court, and rules of settlement have been established by the courts. It is not possible here to consider all the rules that have been established for settling such losses, but it may be worth while to name a few of the well-known rules. There are, for

instance, the Reading rule, the Cromie rule, the Griswold rule, the Chicago rule, the Hartford rule, and the Kinnie rule.

Where the problem of settlement is that of determining the amount of insurance under a general or blanket policy that will be considered to apply to a specific item of property for the sake of applying the rule of contribution, the two following methods are used by two of the rules stated above. One rule distributes insurance under the general policy in proportion as the value insured under the general policy attaches to specific items of property. Another rule makes the contribution in accordance with the proportion of losses on specific items of property. One method of settlement used in cases where a co-insurance clause is attached to one policy, but not to the other, is to calculate the liability of the first policy on the assumption that co-insurance applies, then apply the regular rule of distribution without any reference to co-insurance for the sake of determining the liability under the second policy. Many situations arise in the settlement of losses where several policies are concerned in a particular loss that tax the ingenuity of the most expert insurance adjuster, and for which no fixed rule of settlement can be satisfactory. It is situations such as these that have justified the organization of a group of special adjusters.

11. *Fire insurance policies in Canada.*—A contract of fire insurance in Canada comes within the juris-

diction of provincial legislatures and not within the jurisdiction of the Dominion Parliament. Each province in Canada has an insurance act to which reference must be made as to statutory requirements in that province. The most important of these requirements are the statutory conditions which, under provincial acts, are made part of every contract of insurance. The conditions in British Columbia, Alberta, Saskatchewan, Manitoba, and Ontario are practically identical. The conditions in Quebec, New Brunswick, and Nova Scotia are similar, but differ in many details from the conditions in the other provinces. In all cases, the conditions must be printed on every policy, and, in the five provinces first mentioned above, no variation, or omission, or addition, inconsistent with the conditions, is permitted. In Quebec, Nova Scotia, and New Brunswick, the conditions may be varied if the variations are set out after the words "variations in conditions" printed in colored ink on the policy, and if the court before whom any question is tried holds the variations to be just and reasonable.

12. *Special provisions.*—The following remarks are based on the Ontario Act, but apply to the other provinces having similar legislation. It should be mentioned that a stipulation in respect to user, condition, location, or maintenance is not (if reasonable) a variation of the statutory condition. The insurer, for example, might be willing to insure a farmhouse occupied by the owner but not a farmhouse occupied

by a tenant. Where the insurance covered a building "only while occupied as a private dwelling," it was held that such an expression is part of the description of the risk and that the owner could not recover if the fire took place when the building was unoccupied. In effect, the statutory condition as to vacancy was abrogated by a few inconspicuous words defining the nature of the risk insured against. The insurance contract simply did not apply. This was a trap into which many owners fell, and legislation was required to remedy the situation.

In Ontario, British Columbia, Manitoba, Alberta, and Saskatchewan, since 1929, "nothing contained in the description of the subject matter of the insurance is effective in so far as it is inconsistent with, varies, or avoids any statutory condition." In these provinces, no matter how the risk is described, more than thirty days vacancy, to the knowledge of the insured, will void the policy unless permission is granted. In the other provinces, vacancy would normally be considered as a change in the use of the property, increasing the risk, and notification of the change should be sent to the company at once.

The policy may contain a "co-insurance clause," if words to this effect are printed on the policy in red ink, or a "limitation of liability" clause. The latter clause is to the effect that the insurer shall be liable only for a specified portion of the loss, or to the effect that the insurer shall not be liable for more than a specified percentage of the value of

the property, or, in the event of there being any other insurance, to the effect that the insurer shall be liable only for a ratable proportion of a specified percentage of the loss, or of the value at the time of loss.

In many provinces, mercantile or manufacturing risks cannot be insured for a term longer than one year, and other risks for a term longer than three years.

It is not necessary to disclose the fact that there is a mortgage on the property. Any one with an insurable interest, no matter how limited that interest may be, may insure for the whole value of the property, provided the intention was to insure the whole interest, not merely the limited interest. A mortgagee may insure his own interest, or he may insure for the whole value, and if he intended to cover all other interests, he will be entitled to collect the full value, but he will be trustee for the other interests of any balance after his own interest is paid. It should be noted that neither a shareholder of a company nor a simple creditor has any insurable interest in the property of the company.

If a mortgagee takes an assignment of the mortgagor's equity in the mortgaged premises, and fails to notify the insurance company, he will not be able to collect insurance placed on the property by the mortgagor. This would be a breach of the statutory condition against assigning the premises without the permission of the insurer.

In Canada, the usual practice is to effect the insurance in the name of the mortgagor, with loss payable to the mortgagee "as his interest may appear." It is also usual and always advisable for the mortgagee to apply for and obtain a mortgage clause safeguarding the mortgagee against any act or neglect of the mortagagor. When the insurer pays the loss and in law no liability exists to pay the mortgagor, the insurer, by virtue of this clause, is subrogated to the rights of the mortgagee, or the insurer may pay the amount of the mortgage and take an assignment of the mortgage. It is only against subsequent acts of the mortgagor that this clause protects the mortgagee. If the insurance is void at the outset, for example, if procured by fraud, the mortgagee may not recover.

In case of fire, the mortgagee may require the insurance moneys to be applied by the mortgagor in making good the loss or damage, or he may require that all insurance moneys be applied toward the discharge of the moneys due him under his mortgage. He also has the right, unless otherwise provided in the mortgage, to hold the insurance moneys as additional security, and he is not bound to apply it toward payment of overdue principal or interest.

Formerly, the existence of other undisclosed insurance would void the policy, but now in Ontario and the western provinces the insured can recover 60 per cent of the loss. The other 40 per cent he assumes himself; and any insurance received by him

not disclosed to the original company must be credited to the 60 per cent. It is usual to ask for an endorsement reading "further insurance permitted without notice." A clause in the policy reading "no further insurance permitted" would be considered a variation of the statutory condition, and further insurance would not void the policy.

In Quebec, Nova Scotia, and New Brunswick, the company is not liable for loss if there is any prior insurance in any other company unless the company assents thereto, nor if any subsequent insurance is effected by any other company unless the company assents, or does not dissent, within two weeks after notice.

REVIEW

Describe the methods used by fire insurance companies to protect themselves against dishonest property owners.

Discuss over-insurance and under-insurance and the methods employed to control them.

Explain the reasons given for the short terms of fire insurance policies.

Describe the method of renewing fire insurance policies.

Who may cancel a fire insurance policy, and how is it done?

Explain the procedure to be followed by the insured in obtaining settlement for a loss.

What is meant by adjustment of loss? Describe how it is done.

CHAPTER XIII

THE TECHNICAL BASIS OF FIRE INSURANCE

1. *Purpose.*—In any discussion of insurance, there are three important considerations: (a) magnitude of the risk; (b) coverage; and (c) underwriting and premiums. In previous chapters relating to fire insurance, the amount of the risk, and the possible measures for reducing it were considered; the details of coverage as exemplified in standard insurance policies were also explained. It is necessary now to consider the technical basis of fire insurance, and to examine the principles underlying the rating function, and the underwriting function.

2. *Fire insurance rating.*—A proper rating structure in fire insurance must meet two tests. First, the rate must supply the income that creates the insurance fund from which uncertain losses are paid. This is the test of adequacy referred to in a previous chapter. In fire insurance, adequacy must be measured on the basis of a considerable term of years, since from year to year there is much variation in fire losses, even for a large area like the entire United States. Rates based on the loss experience of a given year, or even of four or five years, might

be insufficient to meet the unusual losses of a year in which a serious conflagration occurred.

The second test of a proper rating system is that the rate should measure the proper contribution of various subjects of insurance to the insurance fund. This is the test of equity. If, for instance, losses in villages or rural districts show twice as large a proportion of insurable value as do losses in cities, a proper rating system would show fire insurance rates twice as large on the average in villages or rural districts as they are in cities. Again, rates on mercantile properties and on dwelling houses should reflect any differences that exist in the susceptibility of these particular types or classes of risk to fire damage.

3. *Kinds of rates.*—Fire insurance rates may be classified as minimum and specific. A minimum rate applies to a large group of properties, such as dwelling houses, where the hazard is relatively uniform in character. Wide variations in losses occurring on properties supposedly of a like type indicate considerable diversity in the conditions determining possible fire loss. The insurance of such properties at minimum rates, which means insurance at a constant rate per hundred dollars of value insured, might show a good profit on all such business written, or, on the other hand, might show an equally large loss. The underwriter is interested in obtaining a fairly regular loss experience on given types of property. Marked variations for kinds of property supposed to be

similar would suggest the advisability of a specific inspection, and a specific rate on each building.

The advantage to the insured of a minimum rate lies in the saving of the expense of separate ratings on each risk. At the same time a possible disadvantage to him lies in the fact that the flat rate charged may be excessive when compared with the loss experienced on such property. While the premium income from the insurance on dwellings probably does not bulk large in the total business of an insurance company, the fact that such business is looked upon in some cases as preferred business may indicate that it is subject not only to stable loss experience but also to good profit.

A specific rate applies where a business, or some operation in it, is deemed to have a distinct bearing upon the possibility of fire loss. Manufacturing covers so many variations of fire hazards that no standard for manufacturing as a whole is possible. The carding room of a textile establishment, for instance, presents vastly different possibilities of fire loss from that of the casting floor of an iron foundry. Two textile establishments, however, may vary as widely as the two cases just cited. In one, for instance, the room is which operations are carried on, that are especially hazardous from the fire standpoint, may be entirely separated from the remainder of the plant, and the entire plant, therefore, will present an average risk far less than its most dangerous parts. One establishment may be equipped

with the latest type of automatic sprinklers, whereas the other has none. This condition would mean a wide difference in the possibility of loss through fire. There is so much variety in the items that influence the fire hazards that, generally speaking, large buildings in congested business districts are subject to specific rating.

4. *Rate-making processes.*—The making of fire insurance rates is an intricate matter. It is done almost entirely by organizations known as rating associations, or rating and inspection agencies. They may confine their operations to a single city, or they may operate over a state or group of states. The area embraced depends largely on local conditions and on the volume of business that is to be handled. For the efficient operation of the insurance business, it is most necessary that the rating of a building for fire insurance purposes be done by only one organization. If every company that wished to write a policy on a given building found it necessary to make a specific rating and inspection of the building, the cost of writing insurance would increase enormously, and this expense, of course, would be paid by the consumers of fire insurance, that is, the property owners.

Minimum rates are class rates determined by the underwriters' association in a given locality on the basis of their general knowledge of the risk involved. The underwriters have at their command information regarding the type of building construction of the

property to be rated, the character of fire protection in the locality and the experience of the community with reference to fire losses in the past. These rates are not based solely on statistical experience of past fire losses but the judgment upon which they are based reflects very definitely, though possibly indirectly, the loss experience of the past on risks of the type in question.

Specific rates usually are obtained by means of a schedule. A property in which the risk is affected to a measurable extent by the features of construction, or the character of its occupancy, is subjected to a very close analysis. Upon this schedule may be listed various factors affecting the risk in question, or the fire hazards in the locality, and these facts must be known to arrive at a correct rate. The proper utilization of the schedule presupposes a careful inspection of property. This inspection is usually made by representatives of the local rating association. The inspection involves not merely a study of the conditions influencing the given property, but also a study of the general conditions surrounding the town or city in which the risk is located, such as the fire department, police force, water supply, congested character of the city, kind and character of streets, possibility of high wind, the hazards of sweeping fires, and numerous other points. The general conditions affecting a city need be investigated but once, and conclusions drawn can be used afterwards in rating all risks in the locality, unless, of course,

changes affecting the degree of risk take place. It is the business of the rating association to keep in touch with all such changes, and to utilize them in the adjustment of fire insurance rates.

In the detailed inspection of a given risk, the usual type of schedule takes account of factors such as the following: the kind of building, whether frame, masonry or fireproof; height; roof construction; floor area; thickness of floors; floor openings, such as stairways, elevators, dumbwaiters, and the protection, if any, of these openings against the passage of fire. The investigation will include the types of business conducted on each floor of the building, the nature of the property on each floor, any work that is done, the number of persons employed in the plant, and the kinds of machines used. It is particularly important that the inspector consider very carefully methods of heating and lighting, or any evidence of untidiness or carelessness that might indicate a substandard condition of care of the building. In factory or office buildings, fire-fighting devices will be carefully investigated, such as fire pails, fire extinguishers, standpipes, and sprinkler systems; and the efficient and proper operation of fire alarm systems will be given due consideration.

The inspection work of the underwriters' association in Canada is thus decribed by A. W. Ross, formerly secretary of the Mainland Board of Fire Underwriters:

We maintain a number of experts who have had extensive experience in inspection, and in applying schedules to various classes, or risks. Uniform practices in the manner of conducting the business are demanded; concurrent forms of policies upon all important individual risks are maintained. In this connection, all daily reports are examined, and approved or otherwise, as the cases may warrant. In the congested or mercantile sections of a city, special inspections and rates are made, each risk being rated upon its own merits. The same thing applies with respect to special hazards, and all important risks. The inspections or survey of each risk, together with detailed information, are kept on file in our offices, and are open to the inspection of all parties interested. It has been the practice of this association to invite the inspection and criticism of the owners of the risks, and we are only too pleased upon every occasion to have the interested parties visit our offices and consult upon any real or supposed grievance which may exist. We advise always to undertake improvements which they may suggest. In this way we can materially improve the hazard in the risk, thereby reducing the rate. In a few instances, we experience some difficulty in inducing owners to undertake suggested improvements, but we find the number of such persons is gradually becoming less, and our experience proves that the large property owners, and public, generally, are daily becoming more disposed to consult with us on the question of construction and protection than they have been before.

Our surveying staff makes periodical inspections of the more important risks in so far as it is possible with the assistance employed. Investigations are constantly being made as to the extent and efficiency of fire departments, water supply, character of streets, conditions and construction of buildings in various cities, and other important matters incident to the suppression of fires, and the extent of the conflagration hazard.

We also employ, or have made arrangements with other

associations for the use of their sprinkling engineers, and we suggest and assist in the drawing up of plans for specifications for the sprinkler equipments, and when installed finally inspect and pass upon the same.

5. *Rating schedules now in use.*—A rating schedule is a means by which all the variable factors that enter into the determination of a fire hazard on a given property may be listed by the inspector or rating expert. It is easy to see the advantage that will accrue from having all of these variable items affecting a particular building set down in black and white, rather than depending on the inspector's memory to include them all when he comes to make a final rate. Without such a list, no inspector would be likely to reach the same final rating on a building in two independent inspections, whereas, the use of the schedule should bring about just this kind of consistency. There is a further advantage in the use of such a schedule in that, in the schedule ordinarily used today, the credit given or charge made for variations in hazards is the result of combined judgment and not that of a particular person. The two schedules most used today are known as the Universal Mercantile Schedule, and the Analytic Schedule. The former owes its completion largely to the energy and assistance of F. C. Moore, long a well-known underwriter in the East, and the latter is equally indebted to A. F. Dean, of Chicago.

6. *Universal Mercantile Schedule.*—The basic consideration on which the Universal Mercantile

Schedule is established is to set a formal rate for a building of a standard type in a place of standard type, and to arrive at the rate on a given property by additions to, and deductions from, this initial rate based upon deviations of the city or property in question from this standard. The base rate for non-fireproof mercantile buildings is 25 cents per hundred dollars insurance, and this rate is supposed to measure the hazard of a standard building construction. Starting with this base rate, it is necessary to obtain a rate that is basic for a given city, known as the key rate. This key rate represents a standard building in a given city, and any deviation that it shows from the base rate of 25 cents is determined by the variation of the general conditions of the city with reference to fire hazard. Many cities, of course, show a key rate in excess of 25 cents, while others with exceptionally good methods of building construction, and of fire protection, receive a key rate less than the base rate.

The schedule lists, in considerable detail, features of construction of the building such as walls, height and area, floor and window openings, heating and lighting devices, electric wires, unprotected columns in the building, and the presence of machinery or equipment for power transmission. The occupancy of the building is next analyzed. The schedule includes a list of nearly two thousand different occupancies. Occupancy is considered from the viewpoint of both ignitibility and combustibility, terms

previously explained. Another part of the occupancy table measures the susceptibility of the given property to damage by fire. The stock may not be a very dangerous or combustible one, but it may be very susceptible to damage. Millinery, for instance, represents such a stock. It will not itself start a fire very quickly but will burn rapidly and, owing to its very light nature, it is highly susceptible to damage from smoke, fire, or water.

After thus providing for a comprehensive anaylsis of the occupancy of a given risk, the schedule next considers fire-fighting appliances. They include water pails, watchman service, special alarms, standpipes, hydrants, and the like. The exposure of the building, next taken into consideration, has reference to the danger of fire from surrounding property. The final list of items includes what are classified as faults of management easily corrected. Such items are listed as unsafe stovepipes or heating conditions, improper care of wastes, and numerous things that in business properties are called "bad housekeeping." For these items, definite rates are charged. They are placed last in the schedule because they can be easily corrected when called to the attention of the interested parties. They can then be adjusted without recomputation of the entire rate.

The following calculation illustrates the determination of a rate by the application of the Universal Mercantile Schedule to a non-fireproof brick building having one tenant, a wholesale dealer in drugs:

TYPICAL RATE CALCULATION

Key rate for city	$ .10
Floors, single	.05
Wood ceiling finish	.07
Wooden side wall finish	.08
Floor openings, stairs only	.075
Skylight, non-standard	.15
Electric lighting	.01
Stove for heating purposes	.01
Substandard chimney	.06
Unprotected metal columns	.10
TOTAL	$ .705
Charge for occupancy	.125
Deduct for fire escapes 2% or	.017
Remainder	$ .813
Add for exposure	.05
TOTAL	$ .863
Deduct 15% because insurance equal to 80% of the value is carried	.129
FINAL RATE OF BUILDING	$ .734
Key rate for contents	.769
Susceptibility charge contents	.569
The stock above and below grade floor	.070
TOTAL	$1.408
Deduct for fire escapes 2% or	.028
Remainder	$1.380
Add for exposure	.06
TOTAL	$1.440
Deduct, because insurance equal to 80% of the value is carried, 7½% or	.108
FINAL RATE ON CONTENTS	$1.332

It would be possible to make a substantial reduction in the rate of insurance on this property by correcting the skylight, for which a charge of 15 cents gross is made. This would not be a difficult or expensive thing to do. It will be noted that charges that build up the schedule are specific amounts, while credits are always made in percentages. This is one of the characteristic features of the Universal Mercantile Schedule as distinct from the Dean, or Analytic Schedule.

7. *Analytic Schedule.*—The Dean, or Analytic Schedule takes as its standard a building of poor construction in a town having substandard conditions of fire protection. The thought in the mind of the author in following this procedure was to devise a schedule that would require the smallest amount of clerical work on the part of the rate maker, and, since most towns were poorly protected and most buildings of ordinary construction, a schedule using these conditions as standard would require the least amount of labor in its application. The schedule differs from the Universal Mercantile Schedule, furthermore, in that, with the exception of charges for damageability and "aftercharges," it makes all charges, as well as credits, percentages of the base rate. The theory on which this is done is that there is a relationship between defective conditions of buildings, and the towns in which they are situated. For instance, if a town in grade seven contains a building with a defective chimney, the charge for

the defective chimney will be a certain percentage, namely, 10 per cent. If the town improves so that it grades in class three, the charge for the defective chimney will still be 10 per cent of the base rate. That is, the same relationship will exist between the chimney and the base rate now, as in the first instance.

In the Analytic Schedule, charges for occupancy are divided into three parts—ignitibility, combustibility, and susceptibility. This schedule carries the analysis of the occupancy to a more refined point than does the Universal Mercantile Schedule, because it does not lump the first two conditions in a single charge. The first and second charges are percentages, but the third charge, susceptibility, is a flat fixed charge, and is based on the principle that, when fire has started, the contents have a certain susceptibility to damage that is not affected by their environment. The exposure hazard is subjected by the Dean Schedule to a very careful analysis, the tables providing for something like eighty different conditions.

The Universal Mercantile Schedule is not copyrighted, and can be changed. With few exceptions, it has not been used in its original form, but has been adapted according to conditions by local boards. The Dean, or Analytic Schedule has been applied over a great expanse of property, and probably with more uniformity in its use than any other that has been made. It is copyrighted, and cannot be changed without the consent of the copyright owner. This

fact has made it possible to test the schedule over a wide territory.

8. *Statistical background of fire insurance rates.* —Fire insurance rates fixed by schedule may satisfy the test of adequacy, and it is generally believed that they are equitable. They are not determined, however, by a completely objective process, since the charges and credits made by schedule are, at best, the judgment of a group of experts. The criticism of fire insurance rating methods in recent years, and much of our legislation with reference to fire insurance rates, seems to rest in large part on the fact that these rates have never been justified statistically. E. G. Richards, endeavoring to meet this criticism, has devised a schedule that he calls the Experience Grading and Rating Schedule. His plan is to keep a statistical record of insurance and of fire losses all over the United States; to determine from this record the fire loss ratio for the entire country; then, by means of analysis by states, to determine such loss ratios for each state, and thereby bring about equity between localities. By further analysis, with reference to the multitude of conditions influencing fire hazards in given risks, he proposes to obtain a statistical measure of the charges and credits that are made in present-day schedules on the basis of underwriters' judgment. The Experience Grading and Rating Schedule has not yet been put to practical test, but represents a highly praiseworthy attempt at further refinement of meth-

ods now in use. Since we have seen the development of an actuarial basis for workmen's compensation insurance rates within the short period of a decade, it seems quite within the realm of possibility that we may some day be able to place fire insurance rates on a similarly sound basis.

9. *Underwriting in fire insurance.*—Even more important, perhaps, than the use of statistical experience in rating is its application in that subdivision of insurance which in a previous chapter was called the underwriting function, or the distribution of losses. This function is fundamental. If a serious discrepancy should arise between the premium income of an insurance carrier and the loss payments that are to be made from this income, the company becomes insolvent and the purpose of the whole arrangement—the distribution of uncertain losses of individuals—is not attained. It is important, therefore, to know how the insurance carrier brings about such a distribution of its obligations that it can always maintain a stable relationship between premium receipts and loss payments.

Adequate rates being assumed, the problem is one of so distributing its liabilities that the company will not be called upon to pay, in a given time, an amount widely varying from the loss ratio upon which the premium income is based. The disastrous, sweeping fires that sometimes occur in congested districts of our large cities emphasize this point. If the company's income makes it possible to pay losses on the

average of 25 cents for every hundred dollars of insurance carried, the selection of a large share of its risks in a given district subject to sweeping fires would, on the occurrence of a serious fire, send the loss ratio to a figure far in excess of the 25 cents that the company had available. In such a locality, the company must clearly limit the amount of property that it will insure.

10. *Use of the fire maps.*—The mechanical device by which the company keeps in touch with the amount of insurance carried in various localities is known as the fire map. These maps are constructed by engineering organizations and they describe very clearly, by use of symbols, the various properties in a given locality, and all the details of construction, and of fire protection, or prevention, that are of importance in fixing rates and in assuming insurance liability. A given page of an ordinary fire map will show three or four, or possibly half-a-dozen blocks in a congested district. Various symbols on the map indicate the nature of the construction of buildings, location of windows, floor openings, number of stories of building, location of fire hydrants, and all such matters that may be of importance in choosing the risks. All buildings, streets, and the like, on the map are drawn exactly to scale, and the engineering concern that makes the map keeps it revised at all times, noting any changes that take place in construction or repair of buildings, and forwarding to its clients, the insurance companies, revised portions

of the map where changes have been made. The underwriter transfers to his map his record of insurance carried on various properties, so that a glance at the map will tell him almost immediately the total amount of his company's liability in a given locality. By comparing the company's premium and loss experience from period to period, and particularly from year to year, for various small localities represented by these maps, the underwriter is enabled to determine very closely whether he assumes too large a liability in given areas.

11. *Limiting liability assumed.*—The extent of the liability that a given underwriter can assume in a locality varies with the size of the company and, of course, with the conservatism of its management. A company that has a premium income of one million dollars per year naturally can assume a greater liability in a given district than would be possible for a company having a premium income of but a few thousands of dollars. The question as to how much liability a company of given size can assume in a particular locality is one that has never been reduced to rule. The experience of many companies in loss payments, and the scaling down of loss payments because of insolvency in the case of large conflagrations, indicate a wide variation in judgment as to the proper amount of risk to carry in congested business districts.

The problem of distribution of risk is thus largely a matter of dodging the conflagration hazard.

While the companies limit the amount of insurance they will carry in any given locality, this may not be a solution of the problem as far as the property owners in such localities are concerned. If few companies operate in this territory, and each one sets a very conservative limit, property owners may be unable to secure sufficient insurance. This situation is met in many companies by accepting a larger liability than they wish to carry and then transferring, through reinsurance, a part of this liability to companies that operate in other localities.

REVIEW

State the essential tests of a fire insurance rating.

What is a minimum fire insurance rate? A specific rate?

State the considerations that enter into the making of insurance rates, in particular, minimum rates and specific rates.

Discuss the rating schedule and its advantages.

Discuss the Universal Mercantile Schedule.

Explain the methods followed in construction of: (a) the Dean Analytic Schedule; (b) the Experience Grading and Rating Schedule.

CHAPTER XIV

MARINE INSURANCE

1. *The marine risks.*—Oversea trade is an important factor in the prosperity of any modern commercial nation. Every article that enters into foreign commerce, however, and all the physical equipment necessary for pursuing it are constantly exposed to the perils of navigation during the ship's voyage. A detailed enumeration of these uncertainties would make up a long list. In the early days of international trade, they included, in addition to the physical or natural perils of navigation, possibilities of capture by pirates and sea rovers, as well as destruction or loss incident to war between nations. The feeling that in modern times these perils had been reduced to the dangers incident to peace-time navigation, based on physical or natural causes, was rudely shaken during the World War. The uncertainties of marine transportation during recent years must have paralleled those that faced the trading companies whose ships traversed the high seas in the early days of international commerce.

As distinguished from others that have been considered in this Text, the marine risk is subject to little control. In common with other economic risks,

it involves a moral as well as a physical hazard. The former, of course, is subject to control within certain limits, particularly in connection with a marine insurance contract, since, generally, it is here that moral hazard manifests itself.

As in similar situations, control is exercised mainly through careful formulation of the policy contract, and through a close scrutiny of the business integrity and reputation of those insured. Control of the inherent and non-personal elements in the marine risk probably lies solely in better ship construction. There is little question of the better seagoing qualities of modern vessels than of those of several generations ago, and it is at least a possibility that improvement in this direction will continue in the future. It must be apparent, however, that conservation, in the sense in which the term has been used in connection with life and accident risks or fire risks, probably never will be a highly important factor in dealing with the uncertainties of marine transportation. This condition being true, the method of insurance must be considered as the essential means of dealing with these uncertainties.

2. *Perils insured against.*—Marine insurance contracts used in ocean-going trade usually enumerate the perils insured against in some such terms as the following:

> Touching the adventures and perils which we, the said assurers, are contented to bear and take upon us, they are of the seas, men of war, fire, enemies, pirates, rovers, thieves,

jettisons, letters of mart or countermart, surprisals, takings at sea, arrests, restraints, and detainments of all Kings, princes, and people of what nation, condition, or quality soever, barratry of the master and mariners, explosions, riots—and of all other perils, losses and misfortune, that have or shall come to the hurt, detriment, or damage of the said ship, etc., or any part thereof.

The quaint wording of this coverage, which seems more fitting to the fifteenth century than to the present time, has been preserved because it has withstood repeated challenges before courts of law, and because its meaning is now considered to be definite.

It would seem from its phraseology—particularly from the latter part, that specifies that all other perils, losses, and misfortunes shall be covered—that the marine insurance contract gives protection against every conceivable loss due to the perils of navigation. This, however, is not true, since the policy does not cover losses that are incidental to navigation. Losses due to wear and tear, to depreciation, to inherent defect, or to natural deterioration are not covered. The policy, in other words, covers only those losses that are fortuitous or accidental in character. At that, the risk covered by the marine insurance policy is of a manifold and far more complicated character than that of other types of insurance.

The first type, perils of the sea include damage to vessels or cargo occasioned through foundering, grounding, stranding, collision, or straining of the

vessel in heavy weather. Fire losses are covered, if resulting from a condition arising after the insurance company's liability attaches. Damage to goods from fire occasioned by a defective condition existing prior to shipment will not be covered by the policy, although, when the fire extends to other goods or to the vessel, in no way due to a defective condition, or where, in an effort to extinguish the fire, regardless of cause, water or other damage occurs, the company is liable. Jettison constitutes the throwing overboard of a part of the cargo, or the cutting and casting away of masts, spars, rigging, or other parts of the vessel, for the purpose of lightening or relieving the ship in case of difficulty occasioned by storm, collision, or fire.

Barratry of the master and mariner involves willful and criminal conduct of those on board the vessel, resulting in loss to the owner of the ship or the cargo, such as scuttling, burning, or wrecking the vessel, its fraudulent diversion from its course with a view to selling it, or its use in smuggling, in illegal trade, or in the violation of a blockade. The clause, as here quoted, covers perils incident to war. Following the outbreak of the European war, in 1914, these perils became so frequent that many insurance carriers rephrased the perils coverage clause to exclude the war risk, or excluded it by indorsement on the policy, requiring thereafter a separate agreement in order to cover it. The war risks offers one of the most extreme examples of the fluctuating character of the

marine perils, rates for war risk coverage during the war fluctuating daily and sometimes hourly, with the changing character of the news with reference to the submarine menace.

3. *Persons and property insured.*—The persons who may be insured against a marine peril include owners of vessels, charterers, shippers, consignees, and creditors. Vessel owners need protection against the loss of, or damage to, their vessels, and against loss of freight charges that have not been collected in advance. Charterers, or those who hire vessels from owners for the purpose of operating them for a profit, may suffer the loss of their earnings from operation as a result of marine perils and need the protection of insurance against this possible loss; or, in some cases, where a chartered vessel is lost or is laid up for repairs, the charter hire ceases, and then the vessel owner suffers a loss which in turn is insurable. Shippers or consignees may lose the value of their cargoes, or the freight charges on lost or damaged goods, where they have contracted that "freight prepaid will not be returned, goods lost are not lost." A large proportion of the goods and merchandise entering into foreign trade is handled by means of funds borrowed from banks, and the creditors' interest in every case of this description must be protected by marine insurance.

4. *Hull insurance.*—The property insured under a marine insurance policy falls into three classes—

hull, freight, and cargo. Hull policies vary somewhat in their terms according to their reference to lighterage, fishing, builder's risk, lake vessels, ocean-going ships, and other classifications. Of more importance in this connection is the classification of hull policies as single vessel risks or fleet insurance. The latter will cover a group of vessels under common ownership or common operation. Single vessel insurance is simpler than fleet insurance, because it is relatively easy to make rates based upon the merits of a given ship; whereas a fleet of vessels will contain the new and the old, the good and the bad, and the underwriter must take the whole or none and must quote a uniform rate for all.

There are three implied warranties at the basis of every marine insurance contract. First, the vessel must be seaworthy in all respects, which means that the hull and equipment must be in proper condition for prosecuting a sea voyage, it must be properly equipped with supplies and provisions, and it must have an efficient and sufficient crew. The two remaining warranties presume that the venture is a legal one, and that the vessel will proceed upon its voyage without undue delay or deviation from the usual route or usages of trade.

5. *Freight insurance.*—Freight, as a subject of insurance, represents the hire received by the owner who lets his ship to another for operation, or the payment made by a cargo owner for the carrying of cargo. In marine insurance, the term is analogous

to the expression "freight earnings" and does not represent cargo or goods as is often the case in inland transportation.

The agreement between the vessel owner and another to whom the vessel is let for operation is called the charter party, and this agreement specifies the conditions under which the payment of charter money is to be made. The charter party usually stipulates that the payment of charter money will cease when the vessel is lost or while it is disabled. If such a mishap occurs, the owner suffers a loss of freight and may insure against such an event. If the charter party requires the payment of charter money regardless of the disabled condition of the vessel, the charterer may insure this loss.

Bill-of-lading freight represents the payment of money by the cargo owner to the vessel owner, or charterer, for the service of carrying cargo. If this freight is paid in advance and if, through marine perils, the cargo is not delivered in sound condition at its destination, the cargo owner may suffer the loss. The vessel owner, or charterer, may lose when freight is payable only upon delivery of the cargo in sound condition at destination, and when delivery fails through the occurrence of some event insured against.

6. *Cargo insurance.*—Cargo insurance is the most important of all, both from the viewpoint of number of policies issued and of volume of premiums obtained. Cargo policies may be issued to cover given

shipments, but the usual method followed today by large importers or exporters involves the use of open-cargo policies, or blanket policies. The open-cargo policy may run for a definite or indefinite term. It usually applies to given geographical limits, and generally places a limit of liability on any one shipment. During the term of the policy, the insured is required to declare all shipments as they occur, or as they come to his knowledge. This procedure fixes the company's liability on a given shipment and the premium obligation of the shipper in accordance with the terms of the policy. The open-cargo policy greatly facilitates international trade, inasmuch as it is unnecessary for the shipper to obtain a separate policy prior to each shipment. In many instances, today, the shipper is uninformed as to the exact date of shipment until long after it has occurred, and, in some cases, he may not have this information until the goods have arrived at their destination.

The disadvantage of the open-cargo policy lies in the facility it offers for the insured to omit to declare shipments. Where the declaration may be delayed until the goods have finally arrived, there is great temptation to declare only those shipments on which losses have occurred, or at least not to declare all shipments, and thereby to deprive the insurance carrier of premium income.

The blanket policy differs from the open-cargo policy principally with reference to premium payments. Under the blanket policy, the premium is

paid in advance for an estimated amount of shipments and an adjustment is made at the termination of the policy when the exact quantity is determined. The advantage claimed for the blanket policy is that it assures premiums for the full amount at risk.

7. *Builder's risk, and protection and indemnity insurance.*—Another form of marine policy is the builder's risk policy, which aims to protect the insured during the course of construction of the vessel. Under this policy, separate insurance may be taken, one period lasting up to the time of launching, and the second period lasting after launching but before delivery.

The premium is based on the maximum liability of the insurer in case of the total loss of the vessel before time of delivery. If a longer time is taken in construction than anticipated, the policy is renewed, and, if the vessel is completed in advance of the time limit, the policy is cancelled and a part of the premium returned. The policy covers all of the risks of the ordinary marine policy—fire, and the dangers attendant upon launching. After launching, the policy covers the hazard of trial trips, collisions, explosions, breakage, and other defects.

Such policies often contain a "protection and indemnity clause" that is designed to cover the insured's liability for damage done the persons and property of others.

8. *Issuing the contract.*—Indefiniteness in an unusual degree characterizes marine insurance. It is

usually neither possible nor desirable to inspect every vessel at the time of issuing a new policy. The results of old surveys must be accepted, or they may be supplemented by information currently published and in the hands of all underwriters. The requirements of modern commerce have decreed that cargo insurance be issued in many, if not the majority of cases, without complete knowledge of the condition of the cargo at the moment of shipment and often without knowledge as to the precise time of shipment. This situation points to the existence of a potential moral hazard that may have serious consequences unless carefully guarded against. Certain legal considerations, therefore, must be given full weight in the interpretation of the marine insurance contract. As a matter of law, the requirements of an insurable interest are fundamental, although even here some flexibility of the contract to meet the conditions and practices of foreign commerce is to be observed. The so-called P. P. I. policies (policy proof of interest) are issued where the insurable interest, though real, may be difficult or impossible to support through documentary evidence. A second factor necessary to give legal sanction to the policy is good faith on the part of the insured. He must communicate to the company all material facts in his possession that he feels would be of importance to the carrier in accepting or declining the risk, or in fixing the rate of premium.

9. *Term of the insurance contract.*—Marine insur-

ance policies are of two kinds—voyage and time policies. The former type covers the risk during a specified voyage, while the latter covers for a given period of time.

Because cargo policies are voyage policies, the time of attachment of the insurance is usually stated in the following words: "From and immediately following the loading thereof on board of the said vessel, as aforesaid, and so shall continue and endure until the said goods and merchandises shall be safely landed as aforesaid." The points in the interpretation of this clause involve the questions of when cargo is on board and when it is safely landed, the question of lighterage being particularly important. In many ports, nowadays, the lighterage risk is covered by separate policies. This clause, as stated, precisely defines the period of attachment of the insurance under specific cargo policies. Where a floating or open-cargo policy has been issued, it covers all shipments after the date indicated. The term of this coverage is extremely narrow, being the time while the goods are on board the vessel, and it is not unusual to find that the shipper wishes to have the time extended. Probably the most usual form in which this extension is allowed is through use of the warehouse-to-warehouse clause, though in some cases policies extend even beyond these limits.

Hull policies may be either time or voyage coverage. Single vessel policies written on a time basis attach from the day and hour named in the policy and

terminate, likewise, on a given day and hour. All single vessel time policies, however, contain a clause providing that "should the vessel at the expiration of this policy be at sea, or in distress or at a port of refuge or of call, she shall, provided previous notice be given to the underwriters, be held covered at a pro-rata monthly premium to her port of destination." In the case of fleet policies, the insurance attaches on all vessels of the fleet at the same date.

The words "from" or "at and from" are used in defining the time of coverage on marine policies, whether on cargo or on hull. They have no special significance as far as cargo insurance is concerned, because, as stated before, the insurance attaches when the goods are on board. On voyage risks on hulls, however, insurance that attaches "from a port" covers from the time when the vessel begins the voyage. When the policy covers "at and from a port" its interpretation is more difficult. As far as the words are concerned, the policy seems to cover for the time while at port. This interpretation is not necessarily true, in every instance, since the coverage must in some way be related to the voyage insured, and it is probably safest to assume that the policy attaches from the time the vessel begins to load. The voyage policy on hulls terminates usually twenty-four hours after safe arrival at the port of destination.

10. *Amount of insurance.*—Marine insurance differs from all other kinds of insurance with reference to the methods of valuing the subject matter insured.

Almost all marine insurance policies are written on the basis of a valuation agreed upon at the time the contract is issued, and a settlement of losses is based upon this predetermined value. The valued policy laws of various states with reference to fire insurance have been subjected to severe criticism on the ground that the fixing of a predetermined value that must be paid in case of total loss is a direct violation of the principle of indemnity. In marine insurance, the valued policy is defended on the ground that insurable values in this field are fluctuating widely at all times and that the determination of precise values, when adjusting losses, would be a difficult and tedious matter, irritating both to the insured and to the company. Furthermore, it is held that the customs and practices of foreign trade make necessary a simpler and easier means of adjusting losses, and even though perfect accuracy may not be obtained in any given valuation, yet, in the long run, insured values will approximate the market value. It is assumed that the basic presumptions upon which the insurance contract is issued will be sufficient protection against moral hazard.

Single-risk policies on cargo usually state the valuation of insurance in some such words as the following: "Valued at sum insured" or "Valued at $ ——." Open-cargo policies usually contain a clause stating that the goods or merchandise are valued at invoice cost, plus 10 per cent, plus prepaid or guaranteed freight; or the policy may state a fixed value per unit

of goods that has been agreed upon between insured and insurer. Hull policies usually specify a given amount at which the hull, tackle, machinery, or other such subdivisions of the vessel are valued. By thus stating separate valuations of various items covered by the hull policy, it is possible for the insured to obtain an indemnity for smaller losses, since the limitations upon losses discussed hereafter will be applied, in this case, to each separate subdivision valued rather than to the entire risk.

When open or unvalued policies are issued, the provisions of the Marine Insurance Act (1906) of Great Britain offer a good illustration of the methods in vogue for determining the value of insured property. According to this law, the insurable value in a hull policy shall be the value at the start of the risk, including ship, machinery, boilers, provisions, stores, wages advanced to the crew, and the charges for insurance; the insurable value of freight shall be the gross amount of freight at risk, plus insurance charges; and the corresponding value of the cargo shall be prime cost, plus any expense of, or incidental to, shipping, plus the insurance premium. It is to be presumed that similar principles will be utilized by marine underwriters in agreeing to valuations under valued policies; or that, where there is any evidence of a violation of these principles, a careful underwriter will decline the risk to avoid potential moral hazard.

11. *Losses covered.*—The losses resulting from the

marine perils insured against may be considered under the three heads: total loss, partial loss, and expenditures or liability losses. A total loss for which the insurer is responsible may be either actual or constructive. In the former case, the subject matter insured either is destroyed totally or is so badly damaged as to be commercially worthless. A constructive total loss occurs where the property insured "though existing in specie is justifiably abandoned on account of its destruction being highly probable, or because it cannot be saved from actual total loss unless at a cost greater than its value would be if such expenditure were incurred." This statement is quoted from "Marine Insurance, Its Principles and Practice," by Frederick Templeman.

An actual loss for both ship and cargo occurs, of course, when the entire ship sinks with everything on board, but it is not necessary that the entire interest insured be lost in order to bring about actual total loss. For instance, complete destruction by fire of one bale of cotton would be an actual total loss of a part of the cargo. A constructive total loss is incurred where a ship is stranded, or founders, or runs upon the rocks, and where the cost of righting it and placing it again in seaworthy condition is greater than the value of the ship so regained.

Partial losses may be general average or particular average losses. A general average loss results from the voluntary sacrifice of property in a marine venture, or from an extraordinary expenditure made

to avert an impending peril. The sacrifice of property, or the expenditure, must have been made for the common safety of all interests involved in the venture. General average losses are entirely independent of any question of insurance and are apportioned on a pro-rata basis among the various interests involved in the venture. In case property so sacrificed has been insured, the underwriter pays the loss to the owner of the property sacrificed and, in turn, is enabled to collect pro-rata amounts from other interests involved. If these interests are insured, their respective underwriters, in turn, pay their pro-rata amounts, otherwise the various interests themselves are liable.

Particular average losses are partial losses arising from marine perils, not involving voluntary sacrifice and therefore falling upon the owners of the property damaged or lost.

The liability of the marine underwriter for losses under the third group named above, that of expenditure and liability losses, covers salvage charges and payments under the "sue and labor" clause and under the collision clause. Salvage charges, in common with general average losses, are entirely independent of marine insurance. They represent compensation allowed under maritime law to persons who render voluntary assistance to a marine venture in order to save it from loss in case of wreck, capture, or other marine disaster. If a vessel were disabled in a collision and its master accepted the services of another vessel to

tow it to port, the vessel rendering this assistance would be entitled to salvage charges. These charges are distributed pro-rata among all interests involved in the marine venture in the same manner as general average losses, and the liability of underwriters on any interest insured is determined in the same way.

The "sue and labor" clause is found in all marine insurance contracts today and requires that

> . . . in case of any loss or misfortune, it shall be lawful for the assured, their factors, servants and assigns, to sue, labor and travel for, in, and about defense, safeguard and recovery of the said ship, etc., or any part thereof, without prejudice to this insurance to the charges whereof the assurer will contribute according to the rate and quantity of the sum herein assured.

The purpose of the clause is to encourage and require the insured to do all in his power to render the loss a minimum.

Under the ordinary terms of a marine insurance contract, damages occurring to an insured vessel as a result of collision are covered but collision may result likewise in damage to the other vessel, or personal injury or loss of life, and if the collision has resulted from the negligence of the owner or representative of the first vessel, this owner may, under the law, be subjected to liability for the payment of property damage losses on the second vessel, or for personal injury or loss of life. The underwriter insuring the vessel, the owner of which is thus found to be negligent, is not required by the terms of his

contract to pay this liability claim. But such a claim may represent an important and dangerous uncertainty to the vessel owner, and the underwriter, therefore, has been called upon specifically to assume the risk. The collision clause assumes not the entire liability risk, but the liability only for property damage. In some cases these losses are covered in full by the insurer. In other cases the insurance covers only a stated proportion and the owner must carry the remainder himself, or find other means of transferring it. The liability for personal injury or for loss of life is not assumed by the collision clause, but this type of hazard is covered under protection and indemnity insurance. Marine insurance, as defined in the Congressional Act of March 4, 1922, expressly includes this type of loss.

12. *Limitations on loss coverage.*—Not all marine insurance policies cover all the types of losses enumerated above. Some policies cover total loss only, others total losses and general average losses. The usual limitations are those with reference to particular average losses. One of the most usual of these limitations, found in cargo policies, is known as the "memorandum clause." This clause lists a considerable number of articles, sometimes a very large number, for which the underwriter limits his liability for particular average losses. Thus, the clause may state that certain items of cargo are warranted free from average, unless general; other articles are warranted free from average under 10 per cent, unless

general. Under this clause, the underwriter assumes no liability for the payment of particular average losses until they have equaled the required per cent. When this amount has been reached, the underwriter is liable for the entire loss sustained.

The main purpose of the memorandum clause is to avoid disagreement as to small losses where questions may arise as to the cause of the loss. It is used particularly in connection with commodities naturally subject to deterioration through dampness, sweating, or atmospheric conditions and where the losses therefrom may result from causes other than the perils insured against.

To insure against total losses and general average claims only or, through the use of the memorandum clause, to limit the underwriter's liability on particular average losses, involves leaving the cargo owner unprotected against many partial losses that may result from stranding, sinking, burning, and collision—the most important marine perils. Under the F. P. A. clause (free particular average), the underwriter assumes liability for these losses. The American form of this clause commonly is worded "free of particular average unless caused by stranding, sinking, burning, or collision with another vessel."

Average clauses are used also in connection with hull policies. They may be either of the minimum franchise form or the deductible average form. With the former, no partial loss is paid until the percentage stated in the clause has been reached. If this amount

is reached, the underwriter becomes liable for the entire loss. In the deductible average form, the insured is liable in all cases for partial losses up to the minimum percentage. Losses in excess of this percentage are assumed by the insurer.

13. *Measure of indemnity for losses sustained.*— The liability of the insurer for losses covered by the policy is measured by the relationship that the insurance carried under a given policy bears, in the case of an unvalued policy, to the full insurable value, or, in the case of a valued policy, to the full value fixed in the policy. If, to illustrate, a loss of $2,000 has been determined on insured cargo valued at $10,000, and if the policy carries insurance for $8,000, this loss will be paid by the underwriter in the proportion of eight to ten, or the underwriter's liability will be $1,600. If, on the other hand, this property were insured under a valued policy, which is the more usual case, and the full value of the cargo has been fixed at $8,000, insurance also being for $8,000, the loss would be paid in full by the underwriter despite the fact that the true value of the cargo was $10,000. In other words, the principle of co-insurance is applied in marine underwriting and the insured becomes co-insurer for any part of the total valuation uncovered by insurance. The total valuation, however, in the valued policy, is the valuation fixed in the contract, even though this may differ from the market value of the goods.

Many cases occur in which more than one under-

writer has insured a given risk. Where there is no over-insurance, or double insurance, as it is usually called, this situation offers no difficulty in the application of the principle stated above. Where double insurance exists, that is, where there is insurance more than sufficient to cover the valuation of the property insured, the practice under English law is that the insured may claim indemnity from any insurer according to his choice, subject to the rule that there shall be no payment in excess of the amount of the loss. The insurer or insurers who thus pay the loss have the right to seek a pro-rata contribution from the other underwriters on the risk.

A different method of dealing with double insurance is used in the United States. Here the liability of the company is dependent on the date of the contract. If a property valued for insurance purposes at $10,000 is insured in two companies for $6,000 each, the policy with the earlier date will contribute in its full amount toward the payment of the loss, the contribution of the second policy being sufficient in amount only to make up insurance equal to the insurable value. Under both the American and the English method of dealing with double insurance, the underwriter is required to return to the insured a pro-rata premium for the part of the insurance that was in excess.

14. *Marine insurance rating.*—The making of marine insurance rates offers many difficult problems. The perils insured against are so many and

the risks are so complicated in character that rates are not placed on an actuarial basis. Marine insurance rating is a product of experienced underwriting judgment. Losses under marine policies include property damaged or destroyed, expenditures incurred in saving or preserving property and liability imposed for negligence.

The possibility of insuring loss varies with the type of vessel, the class of commodity insured, the personal character of the insured, route of trade, season, and trade customs. Whether it will ever be possible to reduce all of these variable factors to a measurable statistical basis may be an open question. To date, the question has been decided in the negative by marine underwriters and the only basis for carrying on the business at present is the judgment-made rate. Statistical experience, of course, is used by all large underwriters. An important subdivision of every large marine insurance company is its statistical department in which premiums are compared with losses, and the results of these comparisons are constantly available for the underwriter who quotes rates. Furthermore, there have been conferences between companies, and comparisons of one another's experience and numerous marine underwriters' associations have been created, some of them actually recommending rates. Nevertheless, rating is still largely an individual matter, and the success of a given insurance carrier is dependent largely on the ability of its underwriters to quote rates that will

not be too low for safety, and yet will be sufficiently low to obtain the necessary volume of insurance.

REVIEW

Enumerate the losses covered by a marine insurance contract and those exempt from it.

Define barratry.

Name the classes of persons who may be insured against marine disaster and the divisions of property that a marine insurance contract includes.

Name and define the various types of marine insurance policies.

What are the implied warranties in every contract?

Define (a) freight, and (b) charter party, as insurance terms.

Describe the issue of cargo policies and the disadvantage of the open-cargo policy.

Distinguish between actual and constructive total loss and general and particular partial loss.

What is the "sue and labor" clause in a marine insurance contract?

Explain the various clauses to limit loss coverage usually found in marine insurance policies.

Discuss the elements of marine insurance rating.

CHAPTER XV

INLAND MARINE INSURANCE

1. *Reason for inland marine insurance.*—One of the outstanding characteristics of the marine insurance policy is the broad coverage offered by the inclusion of a wide variety of risks. In this respect marine insurance differs from most of the other forms of insurance. Usually an insurance policy, other than that covering marine insurance, protects only against a particular hazard. Under ordinary circumstances, the buyer of insurance, therefore, has had to obtain many different policies to secure a measure of complete protection against the various risks to which he is exposed. The modern business world has found fault with this practice, contending that it is inefficient, costly, and duplicates itself in many instances. As a result, insurance companies have begun to issue policies known as "all risk" policies. Although the term "all risk" is applied to these policies, some exclusions are usually contained in them. The "all risk" policies, as well as several other types, are generally classified in the branch of insurance that is called "Inland Marine Insurance."

2. *Nature of inland marine insurance.*—Although inland marine insurance is a later development of

marine insurance, the direct relationship between these forms of insurance is a remote one, except as to the very diversified risk coverages afforded by both. While the name "marine insurance" expresses the character of the insurance protection it provides, "inland marine insurance" is a term that confuses rather than indicates the nature of its coverage. Yet, it would be most difficult to find a comprehensive name that would properly fit this type of insurance. The difficulty is due mainly to the fact that inland marine insurance has become a general title under which a variety of almost unrelated insurance forms have been grouped. The following important types of policies demonstrate the wide range of protection, obtainable in many fields, that is included in inland marine insurance:

(a) Transportation floater
(b) Parcel post policy
(c) Salesmen's floater
(d) Tourist "all risk" floater
(e) Jeweler's block policy

Although efforts are being made to standardize the practices under inland marine insurance, the business is not as yet organized in the same way as are many of the other forms of insurance. In the absence of standardized forms issued by all companies, the insurance companies that are interested in this branch of the business quote their own rates and adjust their policy forms to meet competition and to suit the general conditions prevailing under

the particular type of inland marine insurance desired by their insureds.

Because of the wide variety of risks covered, the practice varies largely according to each individual policy type. It is, therefore, a difficult task to ascertain common factors that can be attributed to all the insurance forms included under the heading of "inland marine insurance." Rather, each type of coverage must be considered separately. Various types of inland marine policy forms are generally referred to as "floaters," since the risk coverage follows the property insured, usually wherever the property may be located.

3. *Transportation floater.*—Supplementing marine insurance, which provides protection only for property on the high seas, the transportation floater obtainable under inland marine insurance offers protection for property in transit by rail, express, and coastwise steamer, as well as connecting lines. This type of insurance is purchased by many manufacturers and shippers of goods even though they can often otherwise recover for damage to goods shipped. Although railroad and express companies are liable to a limited degree for damages occurring, most shippers are anxious to avoid the inconveniences resulting from the usual delays and difficulties in collecting claims from carriers. In addition, bills of lading do not furnish as complete an indemnity for loss as does an insurance policy. By means of the protection under a transportation floater, the

insured can not only obtain a greater proportion of indemnity than otherwise, if the carrier is responsible for the loss, but he also receives relatively prompt settlement after filing his claim against the transportation company and subrogating his rights of recovery to his insurance carrier. The period during which the goods are insured continues from the time they are shipped from the insured's premises until the consignee receives the goods while in due course of transit.

Although the risks generally covered while the property is on land are loss or damage caused by fire, lightning, cyclone, tornado, flood, collision, derailment, overturning of vehicle, and all other risks and perils of transportation, various exceptions may be specifically noted in the policy.

4. *Parcel post insurance.*—The parcel post form of insurance is designed to cover all classes of merchandise accepted by the post office for transportation. The coverage is against "all risks" and extends from the time the property comes into the custody of the post office until it arrives at the destination for which it is intended. The important exclusions for which the insurance company is not liable usually are limited to merchandise shipped on approval, consigned, or on memorandum, unless such merchandise is shipped pursuant to an order. Another important exclusion operates against recovery for the loss of goods that are perishable.

Two forms of policies are available under parcel

post insurance. A certificate or coupon form is used by business firms whose shipments are not considerable. The open policy, which is the other form employed, unlike the coupon form, operates for an indefinite period, subject to cancellation at any time, either by the insured or by the company. Written notice is required to make such cancellation effective. Under this policy the company undertakes to cover, at a specific rate of insurance, such shipments as the insured makes by parcel post. The insured is required to make monthly reports of the value of all parcel post shipments.

These forms of insurance are not to be confused with governmental insurance. Parcel post insurance obtained from private companies is intended to facilitate the settlement of losses, and to provide protection not met by governmental insurance. The latter operates under the additional disadvantage of being cumbersome.

5. *Salesmen's floater.*—Under a salesmen's floater, insurance is provided for trunks containing samples, and for samples of merchandise that are the property of the firm or company in whose behalf the salesman is traveling. This policy is usually an "all-risk" coverage. The usual exceptions to the "all-risk" coverage for which the insurance company is not liable, include loss due to moths, vermin, wear and tear, as well as gradual deterioration and lack of integrity. While the insurance covers the property of the insured, it covers also property that is

held in trust, on commission, sold but not delivered, or that belongs to parties for whom the insured is the agent and for which the insured is liable. The coverage extends wherever the property might be while in the hands or custody of the insured's salesman, within the limits of the United States and Canada. The policy, however, covers the merchandise only while it is actually in the hands of the salesman or in transit between the salesman and the insured's premises. It does not apply to property in the permanent place of business of the insured or that of its salesmen or agents. An important exclusion generally found in a salesmen's floater affects loss of property while it is in or on automobiles or motorcycles during such time as the vehicles are unattended. The loss or damage to insured property on automobiles or motorcycles, caused by the dishonesty of an attendant to whom the property has been intrusted, usually is excluded also.

6. *Tourist floater "all risk" form.*—By means of the tourist floater "all risk" form, it is possible to secure protection on personal effects that are not located at the insured's permanent residence. The risks generally covered are lightning, explosion, earthquake, cyclone, tornado, flood, and risks and perils of navigation and transportation. Other risks covered are theft, pilferage, larceny, and robbery. This form of insurance is particularly desirable for persons leaving their residence for a vacation, business trip, or tour. The coverage usually

extends wherever the property might be within the limits of, or in transit between, the United States, the Hawaiian Islands, Alaska, Canada, the Bahama Islands, Bermuda, and the Panama Canal Zone. Some policies offer wider latitude and extend coverage to all parts of the world. The most important exclusion for which the insurance company is not liable is the loss of goods at the permanent residence of the insured, or at such places where goods are kept in storage, or where the assured or any member of his household ordinarily keeps an automobile. It usually is stipulated that a hotel, boarding house, or club is not considered to be a permanent residence.

7. *Jeweler's block policy.*—The inland marine forms hitherto discussed provide wide coverage for goods while they are not at the premises of the insured. Unlike any of the foregoing policy forms, however, the jeweler's block policy covers stock at the place of business of the insured as well as the insured's stock in the possession of brokers, cutters, manufacturers, repairers, customers, and salesmen. The coverage also includes such property as is sent by registered mail or by insured express or during such time as it is being personally delivered, conditional upon being properly attended at the time. Except for a few minor limitations, the policy covers loss or damage from any cause. Among the exceptions to risk coverage are losses sustained by reason of the dishonesty of an employee or persons connected with the insured, as well as damage resulting

from poor workmanship, loss due to physical disturbances or convulsions of nature, and the breakage of brittle articles. Another exception is loss or damage to property sold on the installment plan.

The premium charge for this coverage depends upon the amount at risk at the premises of the insured and in the hands of travelers. An important element that affects the premium charge is the physical hazard of the premises of the insured.

8. *Miscellaneous policy forms.*—While the four forms of insurance described in this chapter are perhaps the most important, inland marine insurance is being extended very rapidly into other fields. Some of the other forms of inland marine insurance that can be obtained are:

(a) Trip transit floater
(b) Manufacturing clothier's floater
(c) Bailee's customers floater
(d) Personal jewelry floater
(e) Silverware floater
(f) Fine arts floater

The trip transit floater provides protection for one who has occasion to make a single shipment of goods. It offers excellent protection, for example, to anyone shipping his household furniture.

The manufacturing clothier's floater provides protection to the manufacturer of clothing who sends his merchandise to various contractors to be manufactured into wearing apparel. It is a form of coverage that protects the goods while being trans-

ported as well as while the merchandise is on the contractor's premises. It is, in effect, a policy that provides against risks of transportation, sprinkler leakage, and mercantile burglary.

The bailee's customers policy is a form that is sold to laundries and cleaners and dyers. It provides "all risk" protection, subject to limited exclusions, to anyone who has occasion to send goods, for example, to laundries. One of the interesting risks assumed by the insurance company, in connection with laundries, is the risk of loss resulting from the mixing of packages to such a degree that it is practically impossible for the customer to recover his property. The insurance company reserves the option to adjust losses under the policy with either the insured or the customer.

The personal jewelry policy is purchased by persons of considerable wealth to provide an "all risk" coverage of loss of jewelry in and out of the insured's residence. The policy contains some minor exclusions, such as loss due to breakage of brittle articles, unless caused by burglars, thieves, or fire, as well as loss due to moths, vermin, wear and tear, and gradual deterioration.

The silverware policy is an "all risk" policy, subject to minor exclusions. It provides coverage for loss or damage of silverware and silverplate that is privately owned, while located at or away from the insured's residence.

The fine arts policy is also an "all risk" policy

subject to minor exceptions. Coverage is provided for loss or damage to articles, such as pictures, etchings and engravings.

9. *Conclusion.*—The rapid development of inland marine insurance is due to the fact that insurance companies are meeting new needs as they arise, especially the needs of modern business. It is a serious question whether insurance companies can continue to function exclusively along lines that developed in the days of the single proprietorship. There is no doubt that "all risk" protection is desired by the large manufacturer. He must be certain that if he suffers an insurable loss it will be covered with few exceptions or limitations. The probabilities are that an inland marine insurance policy, if further extended, may offer the solution to this demand for "all risk" coverage in every branch of the mercantile world.

State insurance departments that have succeeded in regulating rates, practices, and policy forms, in practically all branches of insurance, have not as yet done as much in the control of inland marine insurance. The reason for this situation is that, generally, inland marine forms do not limit coverage at a particular location but, as noted previously, the protection is floater protection. For example, even though a policy were issued in the State of New York, difficulties would arise if the insurance authorities of that state would attempt to regulate rates, practices, and policy forms that might involve losses occurring elsewhere than in New York.

REVIEW

Describe the essential characteristics of inland marine insurance.

What are the two types of parcel post insurance?

Describe the essential difference between a jeweler's block policy and a salesmen's floater.

What are the important exclusions found in a tourist floater?

Discuss rate regulation of inland marine insurance.

CHAPTER XVI

CREDIT INSURANCE

1. *Nature of the credit risk.*—Credit is a fundamental factor in commercial transactions. To a large extent profits accrue in direct proportion as credit losses are avoided. The problem of credit losses is one that has especially concerned manufacturers and wholesalers, because their margin of profit is threatened constantly by the possibility that a customer who has received credit will become insolvent and, therefore, will be unable to meet his obligations.

Although a number of methods have been developed to combat the credit risk, their efficacy is limited to normal years when credit losses can be anticipated on the basis of previous experience. To discount the credit risk, the cost of the estimated probable losses usually is added to the cost of the goods to be sold. Another familiar safeguard against the credit loss is to exercise extreme caution in extending credit. Neither of these methods, however, can withstand the consequences occasioned by unusual circumstances. A season of business depression, internal mismanagement, labor troubles, or ruinous competition, may operate to throw an otherwise dependable customer into bankruptcy. The

ordinary preventive measures are of little avail to meet such a situation, since at the time credit was extended the customer's financial condition may have been sound, his reputation the best, his business prosperous and, therefore, he was an acceptable risk. It is evident that ordinary precautions would serve to eliminate only apparently poor risks. In general, such precautions have proved rather futile, and credit losses have mounted alarmingly where stabilized business conditions have been disrupted by unexpected and unusual circumstances.

Credit insurance has developed in response to the needs of business for protection against undue losses. It does not cover all types of business. For example, it is not designed to protect retail accounts.

While it is certain that credit losses will continue to occur despite all available measures, credit insurance limits these losses to a maximum beyond which the insured receives indemnity. Thus, it is possible for a business enterprise (at the time credit insurance is obtained) to know definitely the amount of loss that it may sustain proportionately during the existence of the insurance contract. Protection is made available against whatever further credit losses may occur and uncertainty is thereby replaced by business security.

2. *Types of credit insurance policies.*—The type of credit insurance policy that is sold most frequently is the general policy that covers all the customers of the insured, subject to the limitations of the policy.

It is, therefore, not necessary for the insurance company to investigate and approve granting of credit to individual customers because the policy describes the types of customers for whom the insurance company is liable, as well as the amount of liability on each of these customers. The determination of the customers to be covered, as well as the amount of liability on each customer, depends upon two factors. These two factors are the financial standing of the customer and his credit rating.

Information regarding the customer is obtained from mercantile agency manuals issued by the various credit agencies, such as Dun's and Bradstreet's.

TABLE 11

R. G. DUN & COMPANY AGENCY

Key to Ratings

Estimated Pecuniary Strength	General Credit			
	High	Good	Fair	Lt'd
AA Over $1,000,000	A1	1	1½	2
A+ Over 750,000	A1	1	1½	2
A. . . . $500,000 to $750,000	A1	1	1½	2
B+. . 300,000 to 500,000	1	1½	2	2½
B. . . . 200,000 to 300,000	1	1½	2	2½
C+. . 125,000 to 200,000	1	1½	2	2½
C. . . . 75,000 to 125,000	1½	2	2½	3
D+. . 50,000 to 75,000	1½	2	2½	3
D. . . . 35,000 to 50,000	1½	2	2½	3
E. . . . 20,000 to 35,000	2	2½	3	3½
F. . . . 10,000 to 20,000	2½	3	3½	4
G. . . . 5,000 to 10,000	. . .	3	3½	4
H. . . . 3,000 to 5,000	. . .	3	3½	4
J. . . . 2,000 to 3,000	. . .	3	3½	4
K. . . . 1,000 to 2,000	. . .	3	3½	4
L. . . . 500 to 1,000	. . .	. . .	3½	4
M. . . . Less than 500	. . .	. . .	3½	4

Tables 11 and 12 will illustrate the credit ratings as used respectively by these two agencies.

TABLE 12

BRADSTREET AGENCY

Key to Ratings

Estimated Wealth	Credit Standing			
	1st	2nd	3rd	4th
G..... Above $1,000,000	Aa	A	*B*	*C*
H...$750,000 to 1,000,000				
J.... 500,000 to 750,000				
L.... 300,000 to 500,000	A	B	*C*	*D*
M.... 200,000 to 300,000				
N.... 125,000 to 200,000				
P.... 75,000 to 125,000	B	C	*D*	*E*
Q.... 50,000 to 75,000				
R.... 35,000 to 50,000				
S.... 20,000 to 35,000	C	D	*E*	*F*
T.... 10,000 to 20,000				
U.... 5,000 to 10,000				
V.... 3,000 to 5,000	D	E	*F*	*FF*
W.... 2,000 to 3,000				
X.... 1,000 to 2,000		*E*		
Y.... 500 to 1,000				
Z..... 0 to 500	*E*	*F*	*FF*	

While most of the policies that are issued are based upon the ratings in Dun's and Bradstreet's, there are approximately ten mercantile agencies whose ratings are also acceptable to the insurance companies. The credit insurance company requires the use of financial credit ratings, due to the fact that it is confronted with a fluctuating hazard and, therefore, must use as a prime basis the requirement that the customers of the insured have a capital and credit rating in a recognized mercantile agency.

The estimated net worth of an account is ex-

pressed in the mercantile agency books by the capital ratings of the customer, while promptness in meeting obligations and credit reputation are indicated by the credit rating. For example, based on Dun's ratings, B+ 1½, indicates a net worth of $300,000 to $500,000 and a second credit rating. The more substantial firms receive first or second credit ratings and are called regular ratings. These are shown in Roman type on the illustrations of the mercantile agency tables. Business enterprises that are not considered so secure are rated in the third and fourth classes and are called inferior ratings. These are shown in italics on the table. Since the third and fourth classes offer greater credit hazards, customers with such credit ratings are frequently not covered by the policy. In such cases, the buyer of credit insurance must remember that, if he offers credit to such customers, he does so at his own risk.

The liability of the insurance company for any customer of the insured depends upon whether the policy covered the rating of the customer as indicated in the mercantile agency table used. The insurance company does not cover the insured for unlimited amounts sold to any customer, but limits the amount of provable loss in relation to the credit and financial standing of the customer. Large coverage is not extended to customers with inferior ratings. The following table of credit ratings illustrates the liability that the insurance company will assume for

various customers of an insured, using Dun's Agency mercantile ratings.

TABLE 13

CREDIT COVERAGE LIMITS

Based on Dun's Regular Ratings

Key	First Credit Ratings		Key	Second Credit Ratings	
	Maximum Normal	Maximum Abnormal		Maximum Normal	Maximum Abnormal
AA A1	$50,000	$200,000	AA 1	$35,000	$50,000
A+A1	40,000	150,000	A+1	30,000	40,000
A A1	40,000	100,000	A 1	25,000	30,000
B+1	35,000	75,000	B+1½	20,000	25,000
B 1	30,000	50,000	B 1½	20,000	
C+1	25,000	30,000	C+1½	15,000	
C 1½	18,750	25,000	C 2	12,500	
D+1½	12,500	20,000	D+2	10,000	
D 1½	8,750	15,000	D 2	7,000	
E 2	5,000	8,000	E 2½	4,000	
F 2½	2,500	4,000	F 3	2,000	
G 3	1,250	2,000	G 3½	1,000	
H 3	750	1,200	H 3½	600	
J 3	500	800	J 3½	400	
K 3	250	400			

3. *Co-insurance and normal loss.*—The credit insurance policy was not designed to cover the loss of profits involved in sales to customers who fail to pay for purchases. In connection with provable losses, therefore, there is deducted from the net aggregate loss an amount that may be said to represent the profit that would have been made if the accounts had been collected. The amount generally used is 10 per cent. For example, if the provable loss filed with the credit insurance company amounts to $5,000, there would be deducted $500 from that amount of the company's liability. This percentage

deduction from the provable losses is technically called "co-insurance." The effect of this requirement is to compel the insured to exert care in extending credit, since he knows he will be required to carry part of each loss.

In addition to the co-insurance requirement there is another deduction that is technically called the "normal loss." Every business concern suffers a certain amount of loss in normal years. The credit department of a business firm expects that some of the firm's customers will fail in business. Since the credit insurance companies have designed a policy that aims to cover only undue losses, there is deducted consequently a portion from the net aggregate loss that is intended to represent the expected normal loss. This amount is based principally upon the amount of sales. In other words, under the policy, the company's liability depends upon the following three factors:

(a) The amount of losses provable under the policy that is subject to the limitations on the credit rating of each customer stated in the policy
(b) Deduction for co-insurance
(c) Deduction for the normal loss

The balance remaining is the amount for which the company is liable under its policy, provided it does not exceed the face amount of the policy.

4. *The policy contract.*—Before an insurance company will issue a credit insurance policy, the applicant must submit certain statements regarding his

business and manner of operation. The statements listed in the nine items given below are regarded as most important:

(a) Line of business and length of time so engaged
(b) Whether books of account have been kept throughout that period
(c) Line of trade to which the greater part of sales are made
(d) Whether sales are made to jobbers or manufacturers
(e) Regular terms of sale
(f) Percentage of sales to manufacturers, jobbers, and retailers
(g) Available detrimental information as to credit responsibility of customers with whom the applicant has business dealings
(h) Changes contemplated in business
(i) Mercantile agency whose ratings are used as a basis for extending credit

5. *Insolvency clause.*—Losses under the policy can be filed with the insurance company only if the customer becomes insolvent. The definition of the word "insolvent," as used in the policy, is very broad. The company will not only pay for losses suffered by the insured on account of insolvency of his customers, but also will reimburse the insured for outstanding accounts that have not been paid on the due date. In other words, past-due accounts, subject to limitations, can be filed with the insurance company as insolvent accounts. In addition to treating past-due accounts as insolvent accounts, policies also pro-

vide that the insolvency of a customer has occurred, when any of the following take place during the term of the policy:

(a) A petition in bankruptcy or insolvency has been filed by or against a debtor
(b) A debtor has made a general compromise offer to his creditors for less than his indebtedness
(c) A receiver has been appointed for a debtor
(d) A sole debtor has died or become insane
(e) A debtor has executed a chattel mortgage on his stock in trade
(f) An attachment has been levied on a debtor's stock in trade
(g) A writ of execution against a debtor has been returned unsatisfied
(h) A debtor has transferred or sold his stock in trade in bulk
(i) A debtor has absconded
(j) A debtor has made an assignment, or a deed of trust, for the benefit of creditors
(k) The stock in trade of a debtor has been sold under a writ of attachment of execution
(l) A confession of judgment has been made by a debtor
(m) A debtor's business has been assigned or taken over by a committee appointed by a majority in number and amount of his creditors

The company will not be liable, however, if the insured has taken any action with respect to a customer's account, either prior to, or subsequent to, the date when the account was filed with the insurance company, that would operate in any manner against the prompt collection of the claim, or that prevents

the company from exercising its judgment upon any proposal that may be made by the customer to his creditors.

6. *Termination of the contract.*—The credit insurance policy, unlike many other forms of policies, is noncancellable during the term for which it is issued. Credit insurance policies usually are issued for one year. The policy can be terminated, however, if the insured ceases to continue the business described in the policy, or if his business is dissolved or liquidated. It is important to note that temporary cessation of business activity due to such contingencies as fire, strike, or death, admission or withdrawal of a partner, has no effect upon the continuation of the policy.

7. *Policy without credit ratings.*—While the usual general policy of credit insurance depends upon credit ratings, insurance companies also will issue a variation of this policy in which credit ratings are not considered. In such policies no reference is made to the standing of the customers in any mercantile agency. These policies usually are not so satisfactory as the general policy previously described. There are three reasons for this conclusion. Unlike the general policy, there is a very limited liability for all provable losses in any one year, as well as a small limit for the provable loss on a single customer. Furthermore, the policy is subject to a much larger co-insurance deduction than the policy in which credit ratings are used.

8. *Specific policy forms.*—The policies previously discussed can be used to cover all customers of the insured. It is also possible to obtain insurance on individual customers' accounts under a specific policy. The specific policy is designed to cover individual high-grade accounts to which considerable credit is to be extended for short terms. Before providing such risk coverage, the insurance company makes a thorough investigation and determines its acceptance on each separate risk. For this purpose, specific policies are divided into two groups, single account coverage and approved accounts coverage. The first mentioned policy is employed to cover regular or frequent shipments to the same customer. The approved accounts policy constitutes an agreement insuring a percentage of the loss sustained on such shipments as have received the approval of the insurer. An application for credit protection for each shipment of goods is made under the terms of the policy, subject to acceptance by the insurance company of the risk.

9. *Collection of claims.*—Credit insurance companies are concerned primarily with the reduction or prevention of losses. They have, therefore, instituted credit collection departments in their organizations in order to collect accounts on behalf of their insureds. As a phase of the insurance contract, the insurance company agrees to render this credit collection service, which has proved very successful as a constructive benefit to the insured and the company.

REVIEW

Discuss the purpose of credit insurance.

How is the basis of coverage for a customer under the general policy determined?

What is co-insurance and normal loss?

State the essential information required from an applicant for a credit insurance policy.

State the circumstances under which the insolvency of a customer is recognized.

Explain two forms of specific credit insurance policies.

CHAPTER XVII

FIDELITY AND SURETY BONDS

1. *Nature of bonding.*—The growing need of business for protection against the risks of dishonesty, default, and instability has caused the development of fidelity and surety bonds. The following situation graphically illustrates the utility of such bonds. An employer who hires a bookkeeper or cashier is likely to sustain a financial loss if the employee proves to be dishonest. To avoid this hazard, the employer may demand that the employee furnish a guarantee against such loss. This guarantee, provided by a third party, is called a bond and usually is obtained from a company writing fidelity and surety bonds.

Bonding serves an important function in other fields, for example, in building construction. A city advertises for bids to construct a public building. The builder who is awarded the contract must agree to do the work for the price he bid. The city is confronted by the possibility that the builder may not be able to complete the work as agreed, entailing a financial loss that would result from the delay in construction and the necessity of making an award of the contract to a new bidder. The city protects itself against this contingency by demanding a bond from

the contractor, that guarantees to the city the completion of the work by the successful bidder within a specified period. This form of bond is issued also by companies writing fidelity and surety bonds.

All bonds can be grouped into two classes, which are known, respectively, as:

(a) Fidelity bonds
(b) Surety bonds

A fidelity bond is one that guarantees the honesty and frequently also the capability of the individual. A surety bond is one that guarantees the performance of an act, such as the construction of a building.

In every bond three parties are involved. The one who must furnish the bond is called the principal. The one who guarantees the principal's honesty or performance of an act is called the guarantor, obligor or surety. The one to whom the obligor is responsible in the event of the principal's default or dishonesty is called the obligee.

2. *Reason for corporate guarantors.*—While it is possible for individuals to act as guarantors on any bond, it has been found more advisable to use bonding companies for this purpose. In many ways the advantages of corporate bonding make it superior to any personal arrangement whereby an individual assumes the responsibility involved. While a bonding company is in the business of assuming responsibility and has developed resources for preventing losses, the personal surety usually is unable to protect his

interests, unless he is in possession of securities left with him as collateral by the principal.

As far as the principal is concerned, it is undoubtedly preferable that a corporation with an established reputation act as guarantor rather than an individual who may or may not be a responsible party. Even though the individual guarantor may have had a satisfactory financial standing at the time the bond was given, his subsequent death or insolvency may result in a complete loss to the obligee. A most frequent source of dissatisfaction with individual guarantors also has been their tendency to contest liability and thus cause prolonged and expensive legal proceedings. This situation usually does not occur where a surety company has issued the bond, since the company's goodwill and future business depend largely upon prompt settlement of losses. The question of ultimate liability usually is determined conclusively at the time the bond is issued. Primarily, the bonding company is reliable, since it is supervised by the state, which requires the company to publish periodical reports showing its financial condition. Essentially, the greatest protection for the obligee rests upon the fact that the corporate surety aims to supervise carefully the acts of the principal and thereby diminishes the possibility that loss will occur.

3. *Classification of bonds.*—The majority of bonds that are issued can be classified into the following important groups:

(a) Fidelity bonds
(b) Public official bonds
(c) Court bonds (legal and fiduciary)
(d) Contract bonds
(e) License and permit bonds
(f) Depository bonds

4. *Fidelity bonds.*—Under a fidelity bond, the company generally guarantees the honesty and often, also, the capability of a certain person in a position of trust. The risk covered is the possible dishonesty of the principal, whose dishonesty might result in financial loss to the obligee. Employees and officials, usually, thus are bonded. Among the employees insured are cashiers, bookkeepers, bank employees, managers, conductors, drivers, and collectors. In the second category, that of officials, are included treasurers, union officials, and officials of building and loan associations, fraternal orders, charitable associations, and social clubs.

There are three important types of bonds that can be used to cover the fidelity risks. These forms are as follows:

(a) *The individual form.* Under this form, coverage is extended on an individual who occupies a specified position, such as the position of bookkeeper.
(b) *The schedule form.* If an employer has many employees to be bonded, he may wish to avoid obtaining an individual bond for each employee. To meet this condition, a single bond can be obtained containing a schedule listing the name of each employee bonded.

(c) *The position form.* The two forms previously discussed cover specified employees. It is possible, however, that after employing a cashier, but before the employee is bonded, a loss will occur. This contingency is met by the position fidelity bond that covers any employee in the position mentioned in the bond.

5. *Investigation of employee.*—To minimize their losses, the bonding companies make an investigation of the employee's past experience, his character, and his habits. As a result of this investigation, the bonding company may desire not to carry the risk. This investigation protects the employer, as well as the bonding company. An applicant who knows that he cannot meet the requirements of the bonding company will avoid seeking employment with a firm that requires its employees to be bonded. In some cases, concerns such as banks that employ large numbers of employees have objected to the investigation by the bonding company on the ground that each employee is investigated by the employer before being hired.

6. *Public official bonds.*—Many individuals who have been elected or appointed as public officials may be intrusted with the handling of government funds. To protect the government against loss due to the dishonesty or mishandling of such funds by the officials, a bond is required guaranteeing the government against loss due to the fraud or dishonesty of the officials. In addition, the bond also must furnish protection against loss resulting from an official's unauthorized acts or improper execution of duties.

7. *Court bonds (legal).*—The losing party in an action at law may desire to appeal the decision of the lower court. Such an appeal would be allowed under ordinary circumstances, conditional upon the appellant posting a bond guaranteeing the payment of statutory costs, as well as the amount of the judgment. If the appellant was the plaintiff in the trial court, he is required only to post a bond guaranteeing the costs. The surety becomes liable in the event that the appeal is dismissed. Many other forms of court bonds furnished by surety companies are:

(a) *Bail bond.* This bond guarantees the appearance of a prisoner before the court at the time of his trial or whenever required.

(b) *Cost bond.* This bond guarantees the payment of costs in any action at law.

(c) *Petitioning creditors' bond.* This bond provides that if a petition in bankruptcy filed by creditors against a debtor is dismissed, the surety company will guarantee the payment to the debtor of all his expenses, costs, and damages.

(d) *Sheriff indemnity bond.* This bond provides that if a sheriff undertakes a seizure of goods, he will be reimbursed, if he is held liable in damages in an action brought against him for unlawful seizure.

(e) *Bond to discharge mechanic's lien.* A contractor who has not been paid for work performed on a building may file a mechanic's lien against such property and thus prevent the owner from selling the property until the lien is satisfied. A building may be relieved of such a lien, if the owner posts a bond that guarantees payment to the contractor who filed the lien.

The court bonds above discussed have as their general purpose the securing of financial protection to an opposing litigant against damage or costs, in the event that the moving party does not succeed in establishing a case or obtaining a verdict. The surety suffers a loss only if the principal is financially irresponsible. Frequently, the principal is required to deposit collateral with the surety or to submit a satisfactory financial statement.

8. *Court bonds (fiduciary).*—In many instances, individuals are appointed by the courts, or otherwise, to act in trust capacities as caretakers of funds for the benefit of others. Examples of such trust positions are administrators, executors, guardians, receivers, trustees in bankruptcy, and assignees for the benefit of creditors. When a person acts in a fiduciary capacity and the courts are obliged to supervise his acts, he is required to post a fiduciary bond. In the same degree as the acts or omissions of a public official may result in loss to the municipality or township of which he is a servant, so also may the acts or omissions of a trustee result in loss to those dependent upon his honesty and ability. Fiduciary bonds offer protection against all forms of dishonesty and guarantee that the estate intrusted to the fiduciary will not be lessened due to his dishonesty or negligence.

The most important fiduciary bond is the executor's bond. An executor under a will ordinarily cannot act unless he furnishes a bond to the court.

Surety companies that issue fiduciary bonds desire joint control with the executor of the assets of the estate. If a bonding company obtains joint control, it has a check on the executor's activities and is protected against his misuse of funds. It is the practice of the bonding company, in cases of joint control, to permit the executor to use a small amount of the funds without the company exercising any control over such amounts.

9. *Contract bonds.*—Under a contract bond, the surety assumes the liability for the principal's failure to perform a designated task, such as the construction of a building. The usual conditions contained in the contract bond provide that, in the event of a default by the principal, the surety shall have the optional right of assuming and completing, or procuring the completion of the contract.

The contract bond may also provide that the surety company is not liable for the results of fire, earthquake, cyclone, tornado, lightning, malicious mischief, riots, strikes, or war. Other exclusions found in contract bonds provide that the surety is not liable for contractor's default due to insufficiency of materials, wearing qualities, maintenance, or repairs, unless specifically covered by the bond; as well as infringement of patents on patented articles required to be used under the contract. While the foregoing constitute the usual exclusions, it is possible to obtain contract bonds that are not limited in this way.

Since the contract bond is a financial guarantee

and may involve the bonding company in a serious loss, unusual caution is exercised in granting this form of bond to an applicant. The following are important factors considered by the surety company before the bond is issued:

(a) The nature of the work to be performed
(b) The amount of each bid submitted by the various contractors in comparison with the amount of the successful bid
(c) Whether the contract provides for maintenance after the contract work is completed
(d) The equipment of the contractor
(e) The experience of the contractor
(f) The quantity of unfinished work that the contractor has on hand. This factor is considered in order to determine whether the contractor could under ordinary circumstances complete the various jobs
(g) The amount of money, if any, retained under the contract by the obligee, for the purpose of protecting the obligee against mechanic's liens
(h) The amount of liquidated damages, if any, due the obligee for the contractor's failure to complete the work at a certain date
(i) The liability of the surety, if any, for any unpaid bills of the contractor

10. *License and permit bonds.*—Many governmental bodies require persons who follow certain designated occupations to obtain state licenses. The purpose of this requirement is to secure some certainty of protection to the government as well as to the public, against damage resulting from the methods used by the licensees. In this class of persons

are included—pawnbrokers, employment agents, plumbers, electricians, auctioneers, engineers, and warehousemen. License bonds are required as guarantees of proper compliance with statutory requirements and municipal ordinances.

11. *Depository bonds.*—By means of depository bonds, bank depositors are offered a guarantee that their money will not be lost by reason of the insolvency of the bank with which they deal. The principle of bonding applies, since this insolvency may be caused by dishonesty, lack of ability, or lack of financial resources on the part of the management. The state usually demands such a bond when it deposits public funds in a bank, and is often designated by law as a preferred creditor in the event the depository fails. Thus, the state is privileged to receive all the funds it has deposited before any other payments are made to other depositors from the bank's assets. The surety is thereby placed in an advantageous position. As to the ordinary depositor to whom it has issued a bond, however, the surety's position is not so enviable, since it must share in the distribution of the assets on the same footing as general depositors.

Two general forms of depository bonds are available. One type guarantees that the surety will make payments at once, if the banking institution fails. This type of depository bond is known as a "prompt payment bond." The other type, known as the "deferred payment bond," guarantees that the surety will pay the eventual loss determined after the final

adjustment between the insolvent bank and its depositors has been completed and the extent of the salvage has been ascertained.

12. *Mortgage guarantee bonds.*—In addition to the bonds previously considered, there are various bonds issued to serve as guarantees of financial undertakings. A prominent example of this type of bond is the mortgage guarantee bond. Until recently, property owners could borrow money on specific properties only from individual lenders, banks, or mortgage companies. Large real estate operations, however, now are often financed by means of marketing bond issues among a large number of subscribers obtained as a result of a public offering of the issues. In such a procedure, while a single mortgage on the premises provides security for all the bondholders, further security is available to individual bondholders in the form of a mortgage guarantee bond issued by a bonding company. The purpose of this bond is to guarantee that each subscriber will receive the principal and interest to which he is entitled, and that this amount will be paid to him at the regular designated periods.

13. *Lost instrument bonds.*—Another example of a financial guarantee bond is the lost instrument bond. Usually, when one has lost, misplaced, or been robbed of a stock certificate insurance policy, deed, or similar financial paper, the issuance of a new document is sought. It is likely, however, that if any of the original papers have found their way into the hands

of an unscrupulous party, or into the possession of a holder for value, who has purchased in good faith, the state officer or company that has issued the new document may be confronted with a claimant of title and consequent expensive legal proceedings. To anticipate this contingency, it is ordinarily required that, before a new document is issued, a bond must be posted by the applicant for the paper, protecting the party issuing the new document. The surety undertakes to indemnify the maker of the instrument against consequences that may arise from possession of the original instrument being used as a claim to title by others than the recognized owner.

14. *Miscellaneous bonds.*—Among the growing number of bonds that are being adapted to meet various needs are bonds guaranteeing the payment of rent; bonds providing for payment of freight charges; and bonds protecting brokerage accounts against the insolvency of the broker. A type of bond familiar to importers is the custom house bond that guarantees the payment of import duties, or the transfer of merchandise to another port for payment of import duties. The custom house bonds also guarantee that imported goods will be used for specific purposes, thereby releasing the importer from unnecessary duty payments.

15. *Collateral.*—In many cases the bonding company acts merely as a guarantor of credit by issuing a bond, as, for example, a lost instrument bond, or an appeal bond. The company, in effect, guarantees

the performance of an undertaking. In view of this, the bonding company may demand a guarantee directly from the principal, in addition to the premium charged. This guarantee is provided by the principal by depositing collateral with the surety company. The collateral is used to reimburse the surety for loss sustained by it due to the principal's default, and the consequent forfeiture of the bond to the obligee. Forms of collateral desired by the bonding companies are bank books, stocks and bonds that are listed on the stock exchange, and life insurance policies that have a cash surrender value. It is obvious that the bonding company can liquidate these forms of collateral quickly and obtain cash to be used as reimbursement for any loss sustained. Sometimes deeds or mortgages on real estate are offered as collateral by the principal. These forms of collateral are not desirable from the standpoint of the bonding company, because it is required to investigate the validity of the instrument, which procedure may be expensive. These securities cannot be quickly sold or liquidated into cash, and may depreciate.

REVIEW

List the six groups into which bonds may be classified.

Describe three types of fidelity bonds.

How does the surety company guard against loss under an executor's bond?

Discuss the essential factors upon which the issuance of a contract bond depends.

State why a lost instrument bond is sometimes required.

What are the desirable forms of collateral?

CHAPTER XVIII

THE FIELD OF RISK AND THE FUTURE OF INSURANCE

1. *The insurance field.*—In the broadest sense, the insurance field is the field of risk, because fortuitous events of any sort may produce widely varying economic losses to individuals. The principles of insurance may be applied to level down these variations in loss occurrence and reduce them to a reasonable degree of constancy or stability.

Insurance has not yet been applied, however, to all economic risks; those that have been studied in this Text represent, in point of premium volume, or in social significance, the more important fields in which the principles of insurance have been used in dealing with the uncertainties in economic activity. Insurance has been developed, however, in several other fields that cannot be considered here in detail, but that deserve enumeration:

(a) Plate glass insurance covers accidental loss or damage by breakage of glass from certain causes not within the control of the insured. Indemnity under the plate glass policy usually takes the form not of a settlement in cash, but of a replacement of the glass destroyed.

(b) Burglary, theft, and robbery insurance. At first, the burglary risk only was covered in these contracts, but in more recent developments they have covered other forms of theft as well. An important element in many of these types of insurance policies today deals with messenger robbery and payroll robbery.

(c) Title insurance covers the owner or mortgagee of property against imperfection in title. The company makes a very careful investigation into the title of insured property and furnishes the insured with an abstract of title. The policy protects against defects of title not found in this investigation and against faulty interpretation. The losses in this kind of insurance are very small relative to the premium income, the premium charge being, in large part, a payment for the investigation of the title. Title insurance companies, therefore, perform the work of a title abstractor and, in addition, furnish a guarantee that any defect in title due to the faulty character of their work will be compensated for.

(d) Hail, windstorm, and tornado insurance is written in considerable volume in certain sections of the United States subject to these hazards.

2. *Future possibilities in insurance.*—Of the various classes of risk discussed in Chapter I, those to which the methods of insurance, as ordinarily understood, have not been applied and which may therefore be called uncovered risks are included within the classification called "speculative business risks." Included in this classification are the uncertainties resulting from changes in price, or from changes in

demand. It is the peculiar province of the business man to deal with these changes and his success is often attributed to his ability to foresee them and take advantage of them for the benefit of his business. A familiar illustration of a business concern that assumes a risk and receives a return to correspond is the banking syndicate that underwrites a new issue of bonds. The syndicate guarantees a certain price to the issuing corporation and then endeavors to sell the bonds to the public at a higher figure. If its estimate of the public demand for bonds has been correct, the bonds are floated with little effort and little expense to the syndicate that underwrites the new issue of bonds, and it makes a good profit for its members. If, on the other hand, the syndicate has failed to measure the demands of bond buyers correctly, it may be compelled to sell the bonds at a loss, or to hold them for a considerable time, which may amount to the same thing.

At one time many, if not most, businesses were called upon to assume these speculative risks in connection with their ordinary business operations. From such uncertainties business organizations will probably never be entirely free, yet the tendency of modern times is toward forms of specialization in which the risk function is assumed by one organization and other business operations by another. The manufacturer wishes more and more to confine his operations to the making of goods and to obtain his profit for this service. In a specific instance, the

flour miller is interested in buying wheat and grinding it into flour that he can sell to the consuming public at a price that will represent the cost of the wheat, the expenses of his manufacturing operations, and a fair return for the use of his capital and his managing ability.

The difficulty which the flour manufacturer encounters, in common with those in many other kinds of business, is that oftentimes he must quote a price for his product long before the flour is made and even before the wheat is purchased. His price will be based upon some estimated price for the raw material. If wheat fluctuates in price in the meantime, the manufacturer stands either to lose or to gain as a result, the net effect of which is to introduce into his business operations an element of speculation that he greatly desires to avoid. The demand of manufacturers for some means of avoiding these speculative risks has brought about the organization, in many fields, of the economic activity of a separate class of speculators whose function is the assumption of the risk of price change.

The flour manufacturer of today may quote a price at which he will deliver flour six months in the future, and he may then buy from a grain speculator a contract for the delivery six months hence of the necessary quantity of wheat. He may be required to advance a small sum of money immediately as a guaranty for the fulfillment of his contract at its maturity, but he does not tie up for the entire six

months' period capital equal to the amount of his purchase. The speculator who has sold this contract for the future delivery of wheat takes upon himself the risks of price change. His success is contingent entirely on the degree to which he anticipates price movements. In many cases he will lose, and in others he will gain, but the net result of his operations, if he is successful, will be a balance on the side of gain. This phase of the speculator's operations is not generally recognized as insurance. While it is a special application of the insurance principle, it just as surely contains all the elements essential to that principle as do the operations of a life or fire insurance company.

The field of speculation has by no means provided against all the speculative risks to which business men are exposed and, from time to time, in the ever-changing structure of business, developments may be recognized, the fundamental purpose of which is to avoid, or protect against, speculative risks. Combinations of smaller business units into larger concerns operating under unified control are largely for this purpose, although there are many other explanations for combinations. The whole movement toward combination and monopolies is actuated largely by this desire to avoid risks.

3. *Motives in insurance development.*—In the past, insurance systems have developed largely as the result of the demand of the individuals who were subjected to uncertainty in the course of their busi-

ness activities. Where such individuals were aware of their risks and were in a position to pay the insurance premiums demanded for transferring these risks, methods of insurance have been organized. Fire insurance developed because of a demand by property owners for protection against fire loss. Selling for future delivery, a true method of insurance, began because various individuals engaged in the milling of, or in commerce in, grain sought a means of avoiding losses due to price changes.

Certain developments in recent years, both in the United States and in other countries, seem to point out the possibility that the individual demand for insurance will, in some important fields, be replaced by a social demand. While the growth of insurance institutions as the result of a demand on the part of individuals for protection has been truly phenomenal, only those who were in a position to make their demands effective have received insurance protection in this way. Many other classes of individuals not in this favorable position have been exposed to economic losses and, as a result of bearing these losses unassisted, community welfare has been adversely affected. Those who emphasize these facts point to the development of workmen's compensation in recent years in the United States, and for the past several decades in Europe, as indicative of what can be accomplished by a community or national attempt to solve a risk problem by insurance. Similar methods of dealing with the health risk have been in opera-

tion in various European countries for many years and the same has been done in a few cases with the unemployment risk.

That the general problem of economic risk is being more and more considered from a community, rather than from an individual, standpoint is evidenced by the increasing emphasis placed today upon conservation or prevention of loss. The growth of the safety movement since the beginning of workmen's compensation has already been noted. There is also an increasing tendency for all persons and organizations interested in the fire risk to place greater and greater emphasis upon fire prevention. The insurance companies themselves have long been in the forefront of the fire-prevention movement and are gradually being rewarded by the acceptance on the part of the public of more and more rigid standards of safety with reference to fire.

4. *Growth of the service idea in insurance.*—One other tendency in modern insurance development that deserves notice is the growth of the idea that insurance involves service. Many years ago, when the factory mutual fire insurance companies were in the process of formation, factory owners were pleading with fire insurance companies to find some means of reducing fire losses. The stock companies were not interested at that time, rigidly maintaining their position that insurance was the distribution of losses and had no concern with the amount of these losses as long as the premium was adjusted properly. The

factory mutual fire insurance companies were organized with the idea of prevention first and insurance afterward, and their success was so phenomenal that fire prevention is today an integral part of the work of any large stock fire insurance company.

The growth of the service idea has manifested itself more recently in connection with insurance salesmanship. To meet the charge that agency expenses represent an unnecessary and excessive element in the cost of insurance, solicitors of various kinds of insurance have undertaken to prove themselves worthy of their hire. In recent years, the National Association of Life Underwriters has carried on a campaign, the main purpose of which was to acquaint the public with the uses of life insurance without advertising the characteristics of any given company. Furthermore, they have attempted to place before the solicitors of life insurance the idea that their economic justification lies in the assistance that they can furnish to prospective clients in fitting insurance to their economic needs.

In one other field of insurance salesmanship, this idea is also found. In some of the larger cities of the country, there exist a great many insurance brokers. Legislation has, in some cases, been suggested as a means of reducing their number, and the underwriters' associations in various localities have attempted to control their activities. If the insurance broker confines his attention to the mere filling of

forms and writing of policies of insurance, his work has very little value. If, on the other hand, he is in a position to advise his clients with reference to all the technical details of the insurance business, to furnish the proper coverage required, to see that the proper clauses are indorsed on the policy, and to protect the best interests of both the insured and the company, he is then performing a service for which the insuring public is ready and willing to pay. This notion of service is exemplified in the better types of brokers' offices found today. The members of these firms are insurance technicians in the best sense of the term and are supplying to the insured a service of great importance.

REVIEW

Name some forms of insurance which have been developed in fields other than those already discussed.

To what classes of risks has insurance yet to be applied? Give an illustration.

In your opinion, will individual demand for insurance in some fields be replaced by social demand?

Discuss the growth of the service idea in insurance.

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